



STRENGTHENING PROVIDER PERFORMANCE IN REPRODUCTIVE HEALTH AND FAMILY PLANNING:

INNOVATIONS, LESSONS LEARNED, AND RESULTS ACHIEVED

End-of-Project Report for JHPIEGO's Training in Reproductive Health Project 31 March 2004

JHPIEGO, an affiliate of Johns Hopkins University, builds global and local partnerships to enhance the quality of health care services for women and families around the world. JHPIEGO is a global leader in the creation of innovative and effective approaches to developing human resources for health.

JHPIEGO Brown's Wharf 1615 Thames Street Baltimore, Maryland 21231, USA www.jhpiego.org

Cover Design: Gretchen Northern-Kunin; Cover Photo: Julia Brothers

TRADEMARKS: All brand names and product names are trademarks or registered trademarks of their respective companies.

Norplant[®] is the registered trademark of the Population Council for subdermal levonorgestrel implants.

This publication was made possible through support provided by the Service Delivery Improvement Division, Office of Population and Reproductive Health, Bureau for Global Health, U.S. Agency for International Development, under the terms of Award No. HRN-A-00-98-00041-00. The opinions expressed herein are those of JHPIEGO and do not necessarily reflect the views of the U.S. Agency for International Development.

ACKNOWLEDGMENTS

The effort to summarize 10 years of progress and achievement and to highlight the milestones attained in implementing the Training in Reproductive Health (TRH) Project was a shared one, with many contributors.

Over the 10 years of the TRH Project, many JHPIEGO staff played a key role in the successes described in this report. They are too numerous to name individually, but we must acknowledge that all of their contributions—large and small—were essential to the growth, innovations, achievements, and stellar record of accomplishment for which TRH became known. Outstanding among them were the field and Baltimore-based staff who developed, implemented, and refined innovative and award-winning methodologies and approaches for performance and quality improvement, training, and service delivery. JHPIEGO is indebted to all of our staff for their commitment and extraordinary work over the years.

We could not have achieved these results without the cooperation and collaboration of many dedicated professionals, and of the women and families in developing countries whom JHPIEGO serves. These individuals have represented more than 40 countries in the past 10 years.

Principal among those who helped prepare this report were Gail Fraser Chanpong, Dana Lewison, Barbara Rawlins, and Wendy Voet. Sue Griffey and Samuel Dowding provided invaluable assistance in reviewing the manuscript.

To everyone above, and to the USAID staff and program managers both in Washington and in the field Missions, we are grateful for your contributions to the TRH Project.

Ronald H. Magarick, Ph.D. Project Director

iv

TABLE OF CONTENTS

ACKNOWLEDGMENTS				
ABBREVIATIONS AND ACRONYNMS				
EXECUTIVE SI	EXECUTIVE SUMMARY			
Background Overview of	d Overview of the Report	1 1 2 4 5		
Theme 1: A Theme 2: In	LISHMENTS OF THE TRH PROJECT chieving Institutionalization and Sustainability of Clinical Training Systems approving the Enabling Environment for FP/RH Service Delivery at the ational Level	6 6 20		
Theme 3: Si	trengthening the Performance of RH Service Providers through e Use of Innovative Human Capacity Development Approaches approving the Quality of FP/RH Services at Service Delivery Sites	25 35		
LESSONS LEA Capacity Bu Reproductiv Learning Int	uilding re Health Policy	39 39 41 41		
CONCLUSION		42		
APPENDIX A:	Bibliography of Publications Produced under the TRH Project	43		
APPENDIX B:	TRH Contributions to the Field of Training and Learning	73		
APPENDIX C:	TRH Best Practices, Innovations, and Products	79		
APPENDIX D:	Seminal Results from Preservice Evaluations under TRH	81		
APPENDIX E:	TRH Countries with Service Delivery Guidelines, Preservice Education Programs, and/or Inservice Training Programs	82		
APPENDIX F:	Key Evaluations of Provider Performance	83		
APPENDIX G:	TRH Countries with Trainer Development Programs	84		
APPENDIX H:	Selected TRH Products and Tools Adopted by Bilateral Projects and Other Organizations	86		

ABBREVIATIONS AND ACRONYMS

AIDS Acquired Immunodeficiency Syndrome
DMHT District Health Management Team
DTC Decentralized Training Center
FHI Family Health International

FP Family Planning

GIS Geographic Information System

HBCU Historically Black College and University

HIV Human Immunodeficiency Virus IBP Implementing Best Practices

IGWG Interagency Gender Working Group

IP Infection Prevention
IR Intermediate Result
JTN JHPIEGO TrainerNews®

KMTC Kenya Medical Teaching College MNH Maternal and Neonatal Health

MOE Ministry of Education MOH Ministry of Health

MOHP Ministry of Health and Population MVA Manual Vacuum Aspiration

NCTN National Clinical Training Network

NFPSDG National Family Planning Service Delivery Guidelines

NSV No-Scalpel Vasectomy
OJT On-the-Job Training
PAC Postabortion Care

PICG Performance Improvement Consultative Group

PQI Performance and Quality Improvement RCQHC Regional Centre for Quality of Health Care

RH Reproductive Health

STI Sexually Transmitted Infection TAG Technical Advisor Group

TALC Technology-Assisted Learning Center TIMS[©] Training Information Monitoring System

TRH Training in Reproductive Health

USAID United States Agency for International Development

VCT Voluntary Counseling and Testing

WHO World Health Organization

EXECUTIVE SUMMARY

The Training in Reproductive Health (TRH) Project has made substantial and important contributions to improving provider performance in family planning and reproductive health (FP/RH) and strengthening the delivery of high-quality RH services. This report documents the work under two cooperative agreements with the United States Agency for International Development: TRH II (1993–1998) and TRH III (1998–2004).

At its inception, TRH had a broad global mandate to develop sustainable FP/RH training systems in low-resource settings and strengthen provider performance to meet the FP/RH needs of women and their families in developing countries. In response to this mandate, the TRH Project established sustainable FP/RH programs in 42 countries over the last 10 years. These programs developed a global network of FP/RH expert trainers, advocates, and leaders; institutionalized competency-based training in both preservice education and inservice training systems; improved provider performance using innovative approaches such as performance and quality improvement (PQI) and accreditation; and strengthened service delivery in FP/RH, infection prevention (IP), postabortion care (PAC), maternal health, and HIV/AIDS.

The following program objectives defined the TRH Project's mission and guided its work:

- Building capacity for human resources
- Advocating for sound RH policy
- Applying innovative learning interventions
- Developing an international group of RH experts

To meet these objectives, TRH's work has been directed toward the following goals:

- Strengthening the performance of RH service providers through the use of innovative human capacity development approaches
- Improving the enabling environment for FP/RH service delivery at the national level
- Improving the quality of FP/RH services at service delivery sites
- Achieving institutionalization/sustainability of clinical training systems

Important themes, lessons learned, and best practices that have emerged as a result of TRH programs include the following:

- Human capacity development approaches must be employed to effectively produce human resources for FP/RH.
- Strengthening preservice education leads to sustainable training systems and produces competent healthcare providers.
- Expanding the role of nurses and clinical officers increases access to PAC services.
- The performance and quality improvement approach can dramatically increase the quality of service delivery in FP/RH.
- Innovative training and learning approaches are effective and efficient mechanisms for conducting clinical training in FP/RH.

- The competency-based approach to clinical training has wide applications across content areas (e.g., HIV, maternal and newborn health, cervical cancer).
- Transfer of learning interventions are essential to ensure that knowledge and skills acquired during training are applied on the job.
- Internet-based technologies have led to a significant increase in access to FP/RH information for healthcare professionals in developing countries.
- Strengthening linkages between preservice education and inservice training improves the effectiveness of both systems.
- Active rather than passive dissemination of service delivery guidelines improves service delivery practices.
- The standardization of preservice education is facilitated by use of a competency-based learning package.

For the last 10 years, the TRH Project has worked to improve the health of women and their families worldwide through strengthening training systems, updating service delivery guidelines and influencing national FP/RH policy, improving healthcare provider performance, and strengthening FP/RH service delivery. In doing so, TRH developed numerous state-of-the-art learning methodologies and approaches to human capacity development and service delivery improvement. These approaches have been used widely by TRH as well as by many ministries of health, donors, and other Cooperating Agencies. As a result of the TRH Project, sustainable training systems and service delivery improvement programs will continue to strengthen the performance of healthcare providers and FP/RH services worldwide. Furthermore, products and approaches developed by TRH will continue to have an impact on FP/RH services for many years to come.

Strengthening Provider Performance in Reproductive Health and Family Planning: Innovations, Lessons Learned, and Results Achieved

INTRODUCTION

Purpose and Overview of the Report

The Training in Reproductive Health (TRH) Project has made substantial and important contributions to improving provider performance in family planning and reproductive health (FP/RH) and strengthening the delivery of high-quality RH services. Specifically, TRH II (1993–1998) and TRH III (1998–2004), the two cooperative agreements with the United States Agency for International Development (USAID) that this report documents, have:

- Worked in partnership with government institutions and other key agencies in 42 countries to strengthen FP/RH, infection prevention (IP), postabortion care (PAC), and the prevention and treatment of sexually transmitted infections (STIs), including HIV/AIDS.
- Improved competency-based preservice education programs in FP/RH, which have been sustained and now are producing competent providers for 47 cadres of healthcare provider in 28 countries.
- Strengthened competency-based inservice training programs, using innovative approaches such as individualized learning, in 37 countries, reaching 64 cadres of healthcare providers.
- Established a global network of 3,571 expert trainers and advisors in FP/RH.
- Developed and disseminated state-of-the-art service delivery guidelines, which serve as the basis for high-quality healthcare services and training, in 29 countries.
- Worked collaboratively with many other organizations to develop the performance and quality improvement (PQI) approach and apply it to increase access to and quality of FP/RH services globally.
- Established PAC programs, which effectively link postabortion clients to FP and other RH services, in 10 countries across three regions.
- Spearheaded the design of high-quality training in IP for FP/RH services through developing competency-based training materials, applying innovative approaches such as PQI, and ensuring that IP is an integral part of all FP/RH training and service delivery programs.
- Ensured the dissemination of best practices worldwide by becoming a founding partner in the World Health Organization (WHO) implementing best practices (IBP) initiative, espousing a leadership role in USAID initiatives such as Maximizing Access and Quality (MAQ), and working with incountry partners and USAID to establish the Regional Centre for Quality of Healthcare (RCQHC) in Uganda.
- Introduced cutting-edge clinical and technical solutions to FP/RH service delivery programs, such as the U-technique for removal of Norplant[®] implants and the no-touch technique for IUD insertion.
- Developed and produced 11 global and 23 country-specific evidence-based learning packages in areas such as IUD and Norplant insertion and removal, breast and pelvic examination, IP, PAC, clinical training skills, and instructional design. These learning

- packages are available in print, on-line, and in CD-ROM formats. (See **Appendix A** for a bibliography of all publications produced by the TRH Project over the last 10 years.)
- Expanded global access to evidence-based FP/RH information through the development of key resources such as ReproLine[®], a reproductive health information website, and through the establishment of technology-assisted learning centers (TALCs).

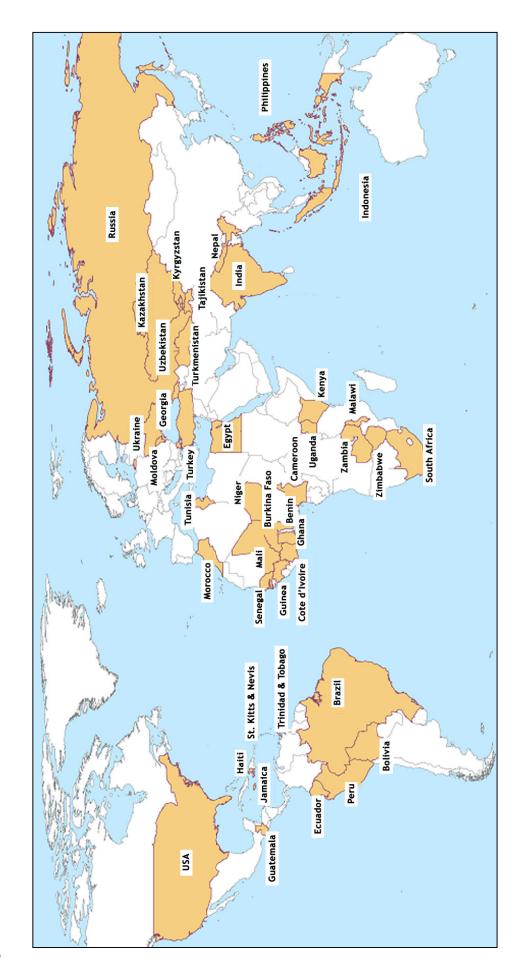
This report provides an overview of these important accomplishments and reviews lessons learned and challenges faced by JHPIEGO during the implementation of TRH II and TRH III, in four sections:

- Introduction
- Key accomplishments of the TRH Project
- Lessons learned
- Conclusion

Background

Established in 1973, JHPIEGO, an affiliate of Johns Hopkins University, builds global and local partnerships to enhance the quality of healthcare services for women and families around the world. To achieve this goal, JHPIEGO supports programs throughout Africa, Asia, the Near East and Europe, and Latin America and the Caribbean to increase access to services and to improve the quality of those services at the lowest resource setting—the home and the community—where women most at risk live and die. The organization's work spans a continuum of client-centered care—from prevention to treatment—in FP/RH, HIV/AIDS, maternal and neonatal health, and cervical cancer. Today, JHPIEGO works collaboratively with partners at the international, national, and community levels in more than 30 countries to improve the accessibility and quality of healthcare and is renowned for its expertise in five areas: building capacity; promoting sound health policies; creating innovative learning resources; developing networks of trainers; and promoting best practices.

The TRH Project has been one of the key global USAID awards implemented by JHPIEGO. At its inception, TRH had a broad global mandate to develop sustainable FP/RH training systems in low-resource settings and strengthen provider performance to meet the FP/RH needs of women and their families in developing countries. In response to this mandate, the TRH Project established sustainable FP/RH programs in 42 countries over the last 10 years (see map in **Figure 1**). These programs developed a global network of FP/RH expert trainers, advocates, and leaders; institutionalized competency-based training in both preservice education and inservice training systems; improved provider performance using innovative approaches such as PQI and accreditation; and strengthened service delivery in FP/RH, IP, PAC, maternal health, and HIV/AIDS. (See **Appendix B** for a summary of TRH contributions to the field of training and learning, and **Appendix C** for a list of TRH best practices, innovations, and products.)



Overview of the TRH Project's Key Objectives

TRH II (1993–1998) had the following five objectives:

- 1. **Capacity Building**: To establish the capacity of countries to train their own healthcare personnel to deliver quality FP services, especially long-term methods, through the development of national training systems.
- 2. **Direct Training**: To meet the short-term national FP needs, especially in long-term methods, through the training of service providers.
- 3. **Maximizing Access and Quality of Services**: To increase access and quality of RH services by strengthening medical, training, and service protocols and practices worldwide.
- 4. **Training Technologies, Approaches, and Materials Development**: To improve effectiveness and efficiency of RH training.
- 5. **Global Expert Resource Development**: To expand international RH training resources and systems.

In the wake of the 1994 U.N. International Conference on Population and Development (Cairo, Egypt) and the 1995 U.N. Fourth World Conference on Women (Beijing, China), the goal of international FP/RH development assistance changed. As a result, objectives developed to guide TRH III changed to reflect the shifting priorities of international FP/RH assistance. These objectives responded to the need to provide direct training as well as to implement a systematic approach to ensuring high-quality healthcare. The objectives of TRH III (1998–2004) became:

- Capacity Building: To expand national capacity for strengthening human resources in order to increase access to and quality of FP and other selected TRH services through basic preservice education and training and appropriate performance improvement strategies and interventions.
- Reproductive Health Policy: To collaborate with governments and key institutions to promote and harmonize sound RH policies and strategies through public and private partnerships in order to leverage resources and facilitate implementation of sustainable national programs.
- 3. **Learning Interventions**: To improve the effectiveness and efficiency of integrated RH education and training through the application and transfer of innovative learning approaches, educational resources, and emerging information technologies.
- 4. **Global Expert Resources**: To maximize the effectiveness and impact of an expanding group of international RH experts and associated institutions through professional development, institutional partnerships, and establishment of a global communication and training network.

These four objectives focused on improving the accessibility and quality—not just the quantity—of FP/RH services, and placed an emphasis on comprehensive approaches to achieve results.

In 1998, the USAID Bureau for Global Programs, Field Support and Research, Center for Population, Health and Nutrition's Communication, Management and Training Division developed a Training Results Package. It served as the main Results Package for USAID-supported training of medical and community-based FP/RH care providers. The Training Results Framework called for the achievement of four Intermediate Results (IRs) that contribute

to the Strategic Objective "improved provider performance and sustainable national capacity for training and education in FP/RH." Specifically, the four IRs were:

- IR 1: Strengthened preservice education, inservice training, and continuing education systems
- IR 2: Improved management support systems for training
- IR 3: Improved policy environment for training
- IR 4: Better informed and empowered clients

Once the Training Results Framework was finalized, the TRH III objectives were mapped to the Strategic Objective and the four IRs.

Evolution of the TRH Project

As discussed above, the initial goal of the TRH Project was to improve clinical skills of FP/RH providers worldwide through the establishment of sustainable national FP training systems. This was accomplished through a process that developed global standards and materials and built regional and country-level capacity to test, apply, and institutionalize these resources. As the TRH Project's mandate shifted, however, TRH initiatives increased in breadth and depth to incorporate and implement comprehensive human capacity development and PQI approaches.

As the TRH Project spearheaded a transition to this more comprehensive approach, which emphasizes the development of key systems that support and improve national service delivery capacity, it:

- Utilized human resource development and PQI models to build the capacity of human resources in healthcare.
- Worked with governments and key institutions to improve forecasting and deployment of human resources.
- Emphasized the importance of fostering a policy environment that supports RH and increases access to important services by expanding the role of nurses/midwives and clinical officers.
- Promoted the development and effective dissemination of standardized, evidence-based service delivery guidelines and training materials.
- Developed operational performance standards as part of a PQI process for improving service delivery.
- Worked with the community to define high-quality healthcare and increase demand for improved services.
- Promoted the design and application of alternative learning approaches such as self-paced/individualized learning for no-scalpel vasectomy (NSV) and PAC.
- Developed and applied innovative, computer-based technologies for learning.
- Improved supervision systems that have an impact on the quality of service delivery.
- Integrated activities that address gender-based issues into its programs.
- Strengthened the leadership skills of key stakeholders and supervisors.
- Linked training and PQI initiatives to programs that strengthen logistical and management capacity.

 Utilized geographical information systems to monitor training, service delivery, and quality of care.

In addition to changing its approach to accommodate an expanding mandate, the TRH Project used its strong, global platform in FP/RH to expand its impact into new areas such as PAC, IP, essential maternal healthcare, HIV/AIDS, and supervision.

Thus, while TRH's core capacity in the delivery of high-quality clinical training in FP/RH remained strong over the years, the TRH mandate and portfolio were enlarged significantly to reflect changing field needs and conditions. With expertise in PQI, supervision, human capacity development, gender integration, HIV/AIDS, IP, PAC, and information technology, TRH demonstrated its capacity to strengthen service delivery, in addition to training systems, worldwide. TRH's work also began to focus on healthcare providers who work at the community level.

KEY ACCOMPLISHMENTS OF THE TRH PROJECT

Since its inception, the TRH Project has produced substantial results in both FP/RH training and service delivery. This report organizes these accomplishments under four key themes that reflect the breadth and depth of the TRH Project's legacy:

Theme 1: Achieving institutionalization and sustainability of clinical training systems

Theme 2: Improving the enabling environment for FP/RH service delivery at the national

level

Theme 3: Strengthening the performance of RH service providers through the use of

innovative human capacity development approaches

Theme 4: Improving the quality of FP/RH services at service delivery sites

Theme 1: Achieving Institutionalization and Sustainability of Clinical Training Systems

Principal Achievements

A cornerstone of the TRH approach has been the institutionalization of clinical training systems, which use standardized, up-to-date materials and a competency-based training approach. To this end, TRH has worked to establish sustainable national clinical training systems worldwide and ensure that preservice education and inservice training are integrated within these systems. The following principal achievements provide in-depth examples of how the TRH Project has produced substantial training results, which ultimately have led to improved quality of healthcare.



Photo by Ron Magarick

Establishment of Sustainable National Clinical Training Systems

Over the last 10 years, the TRH Project has worked with host-country counterparts to develop national training systems that ensure that a steady supply of competent clinical trainers and healthcare providers is produced and receives knowledge and skills updates on a regular basis. To accomplish this, TRH has strengthened and expanded preservice education in 28 countries, reaching 47 cadres of providers (see **Table 1**).

Table 1. Expansion of Preservice Education Under TRH (47 Cadres Reached in 28 Countries)

		CAL	DRE	
COUNTRY	Medical	Nursing	Midwifery	Other*, **
Benin		Х		
Bolivia	X			
Brazil	X			
Ecuador	X	Х		
Egypt	X	Х	Х	
Ghana	X		Х	X - CHN
Guatemala	X	Х		
Guinea		Х		
India	X			
Indonesia	X		Х	
Kenya	X	Х		
Malawi	X	Х		
Morocco	X			
Nepal	X	Х		X - ANM
Niger	X			
Peru	X		Х	
Philippines	X	Х	Х	
Republic of Georgia	Х			
Turkey	Х		Х	
Uganda	X	Х		
Ukraine	X			
United States	X	Х	Х	
Zambia			Х	
Zimbabwe		Х	Х	
Regional project for four Central Asian Republics: Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan	4X			

^{*} ANM = Auxiliary Nurse/Midwife

TRH has also developed inservice training systems in 37 countries, reaching 64 cadres of providers. (See **Table 2** for a distribution of these inservice programs by country and cadre.)

^{**} CHN = Community Health Nurse

Table 2. Consolidation of Inservice Training under TRH (64 Cadres in 37 Countries)

		CAD	RE	
COUNTRY	Medical	Nursing	Midwifery	Other*, **
Bolivia	Х	Х		
Brazil	Х			
Burkina Faso	Х			
Côte d'Ivoire	Х		Х	
Ecuador	Х	Х	Х	
Ghana	Х	Х		
Guatemala	Х	Х		
Guinea	Х			
Haiti	Х	Х		
India	Х			X - ANM
Indonesia	Х		Х	
Jamaica		Х		
Kenya	Х	Х		
Malawi	Х	Х		
Mali	Х	Х	Х	
Moldova	Х			
Morocco	Х	Х	Х	
Nepal		Х	Х	
Peru	Х	Х		
Philippines	Х	Х	Х	
Republic of Georgia	Х			
Russia	Χ			
Senegal	Χ	Х	X	
St. Kitts & Nevis				X - C
South Africa		Х	X	
Trinidad & Tobago				X - C
Tunisia	X	Х	X	
Turkey	Х			
Uganda	Х	Х	Х	
Ukraine	Х			
Zambia	Х			
Zimbabwe		Х	Х	
Regional project for five Central Asian Republics: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan	5X			

^{*} ANM = Auxiliary Nurse/Midwife

^{**} C = Counselor

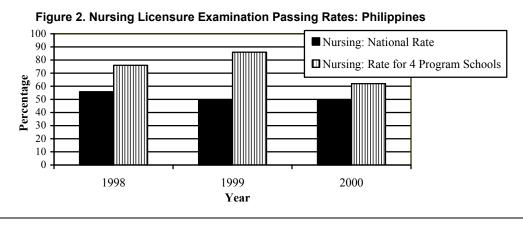
As it improved preservice education and inservice training programs worldwide, TRH worked with governments and key counterparts to:

- Develop and implement standardized, competency-based FP/RH curricula that promote mastery learning.
- Improve the knowledge and skills of tutors and clinical trainers/preceptors.
- Strengthen service delivery sites used for clinical practice.
- Provide key training materials such as anatomic models to participating schools and training centers.
- Establish high-quality monitoring and training information systems.

Establishing high-quality preservice education programs was a priority for the TRH Project because evidence from TRH's preservice programs, captured in level 3 evaluations (see **Appendix D** for a list of seminal results from evaluations of preservice education under TRH), demonstrated that strengthening preservice education using a competency-based approach leads to sustainable training systems that produce skilled healthcare providers. (See case study from the Philippines, below.) These healthcare providers are able to immediately meet FP/RH service delivery needs, thereby reducing the need for more costly inservice training.

Sustainable Preservice Education Programs Producing Competent Providers in the Philippines¹

Fourteen midwifery and 13 nursing schools in the Philippines graduate healthcare providers whose passing rates on the national licensure examination are consistently higher than the national average, thereby demonstrating improved preparation for FP/RH service provision (see **Figure 2** below). These high-performing preservice institutions were strengthened between 1987 and 1998 through a program implemented by the TRH Project, the Association of Deans of Philippine Colleges of Nursing, and the Association of Philippine Schools of Midwifery. This program developed a standardized, competency-based curriculum, updated the FP/RH knowledge and skills of preservice faculty, strengthened faculty training approaches, and refurbished school-affiliated clinics. An evaluation conducted 3 years after program closeout showed that the FP/RH preservice education investments had been institutionalized and sustained. Evaluation results confirmed availability of trained faculty, continued implementation of the competency-based FP/RH curricular components including student skills assessment, availability of functioning clinical training sites, and designation of all school clinics as service delivery points for the government's FP program.



¹ Pons M, B Rawlins, and SJG Brechin. 2002. *Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts*, 1987–1998. JHPIEGO Technical Report JHP-16. JHPIEGO Corporation: Baltimore, MD.

_

Another example of sustainable preservice education is from Ghana, where a study showed that competency-based technical assistance provided to midwifery schools under TRH was effective in transferring knowledge and skills, and that the effects were maintained.²

Sustainable Preservice Education Achieved in Ghana

As a result of a TRH initiative in Ghana, 250–300 midwifery students graduate from competency-based preservice education programs every year. In June 2000, an evaluation of these midwives 1 year after graduation showed that midwives trained at TRH intervention schools had significantly better total knowledge and total skills than the midwives in the comparison group. Specifically, midwives from the intervention schools exhibited significantly higher knowledge of FP and were much better at IP practices including handwashing and instrument cleaning.

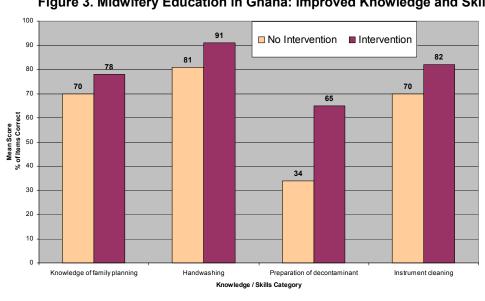


Figure 3. Midwifery Education in Ghana: Improved Knowledge and Skills

The TRH Project's considerable body of experience in strengthening preservice education for healthcare professionals is documented in the Preservice Implementation Guide: A Process for Strengthening Preservice Education.⁴ The guide describes the step-by-step process used to create a positive environment on the national level for strengthening preservice education. and the steps taken on the institutional level to improve the existing curriculum and its implementation. Additionally, in collaboration with WHO, JHPIEGO/TRH developed the Effective Teaching: A Guide for Educating Healthcare Providers reference manual. This learning package, which includes a Guide for Learners and a Guide for Facilitators, was designed to help classroom and clinical faculty members in schools of medicine. nursing, and midwifery strengthen their teaching skills.⁵

10

² Fogarty L et al. 2003. A Matched Case-Control Evaluation of the Knowledge and Skills of Midwives in Ghana Two Years after Graduation. JHPIEGO Technical Report JHP-21. JHPIEGO Corporation:

Fogarty L et al. 2003. A Matched Case-Control Evaluation of the Knowledge and Skills of Midwives in Ghana Two Years after Graduation. Technical Report JHP-21. JHPIEGO Corporation: Baltimore, MD. Schaefer L (ed). 2002. Preservice Implementation Guide: A Process for Strengthening Preservice

Education. JHPIEGO Corporation: Baltimore, MD.

World Health Organization and JHPIEGO. 2003. Effective Teaching: A Guide for Educating Healthcare Providers. Field-Test Version. JHPIEGO Corporation: Baltimore, MD.

Inservice training, as a complement to preservice education, has also been an important aspect of the TRH Project's overall portfolio. The TRH Project strengthened inservice training systems worldwide using group-based approaches as well as innovative techniques such as individualized and computer-assisted learning. In doing so, TRH improved provider performance and service delivery in a broad range of technical areas in FP/RH, IP, and PAC. (See case study from Zambia, below.)

Postabortion Care Services Improved in Zambia through Strengthened Inservice Training

Since the inception of the TRH Zambia PAC expansion program in 1999, more than 24,000 women have received improved life-saving services, including MVA, for complications of abortions or miscarriages. In 2003, an average of 61% of PAC patients accepted a modern FP method to help prevent future unwanted pregnancies, representing a substantial increase from previous years (30% in 2001 and 55% in 2002). At the start of this initiative, baseline assessments showed that only one hospital in the country routinely used MVA to manage postabortion complications, and no postabortion services routinely integrated FP counseling.

These results have been produced in Zambia through the improvement of inservice PAC training, using the JHPIEGO PAC individualized learning package. Provincial and district health managers, hospital supervisors, and clinical site managers were oriented to this approach and the overall PAC initiative to ensure their support. In total, 132 administrators and service providers have now been oriented to the PAC expansion program and elements of high-quality PAC services. Moreover, TRH's PAC program in Zambia has used its innovative individualized learning approach to train 244 healthcare providers from nine provinces in IP and 173 service providers from nine provinces in FP counseling, and to prepare 37 providers from six provinces to provide comprehensive PAC services, including MVA. Twenty-nine of the 37 providers prepared to deliver comprehensive PAC services have also been trained in clinical training skills, enabling them to continue to expand the PAC initiative. These PAC clinical trainers are now part of a national PAC training network, which is functional in all nine provinces within Zambia. Six of the institutions strengthened through the TRH Project are serving as model PAC clinical training sites. They are the backbone of PAC clinical training network that TRH helped the national PAC Task Force to establish at the provincial level, which will in turn enable the Task Force to reach its goal of introducing high-quality PAC services to 100 sites nationwide. Two teams of PAC evaluators have also been formed and trained to allow ongoing evaluations to be carried out in a sustainable and costeffective manner.

The TRH Project also used its expertise in competency-based training to expand into additional content areas such as HIV/AIDS, as illustrated in the case study below from the Caribbean region.

Reproductive Health Service Providers Trained in HIV Voluntary Counseling and Testing Services in Seven Caribbean Countries

TRH expanded the availability and accessibility of integrated RH and HIV voluntary counseling and testing (VCT) services to more than 200 public sector service delivery sites in seven Caribbean countries in FY03. In doing so, TRH worked closely with the USAID/Caribbean Regional Program, National AIDS Programs, ministries of health, nongovernmental organizations, and faith-based and community-based organizations based in Jamaica, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Guyana, and Trinidad and Tobago. In all seven countries, the VCT training program focused on integrating VCT into RH services, specifically, making VCT available at antenatal care and STI clinical sites. By March 2004, 60 trainers and 894 counselors trained by the program in VCT service provision are using the *VCT Performance Standards* developed under the program to monitor and improve the quality of VCT services at the more than 200 public sector sites.

With the increasing worldwide recognition that FP must be integrated with HIV/AIDS services, TRH began a pilot program in Kenya (see case study below).

Family Planning Integrated into Voluntary Counseling and Testing in Kenya

In 2003, TRH developed a 2-day group-based orientation package on FP for VCT counselors and trained 28 VCT counselors using this orientation package. TRH has also played a key advocacy role in raising the importance of the issue of the integration of FP into HIV programming in Kenya. As a member of the Ministry of Health (MOH) Task Force on FP/HIV integration, TRH contributed to the development of the MOH's Strategy for the Integration of HIV Voluntary Counseling and Testing Services and Family Planning Services. The orientation package on FP for VCT counselors, which received official endorsement from the Kenya MOH, fills a crucial gap in the availability of materials to promote the integration of HIV and FP services in Kenya. The package will also act as a tool to address the first steps outlined in the MOH's national FP and HIV/AIDS integration strategy. JHPIEGO/TRH took an active role in helping to create this strategy, with the national Family Planning/HIV Integration Task Force.

Another example of TRH's expansion into new content areas is Zambia, where TRH adapted and finalized standardized, competency-based training packages for antiretroviral therapy, management of opportunistic infections, and prevention of mother-to-child transmission of HIV. Using these packages, TRH strengthened the clinical skills of a core group of healthcare providers and developed their training skills so that they can provide clinical training for healthcare providers in the country's nine provinces.

Key aspects of TRH's experience in inservice training are captured in *Training Works! What You Need to Know about Managing, Designing, Delivering, and Evaluating Group-Based Training.*This handbook, developed in collaboration with Family Health International, IntraHealth International, the Population Leadership Program/Public Health Institute, the Training Resource Group, and USAID, summarizes the tasks that should be completed at each stage of FP/RH training to ensure an effective training course.

Successful Integration of Preservice Education and Inservice Training Systems

During the course of its work to strengthen clinical training systems in developing countries, TRH recognized the importance of linking the preservice education and inservice training systems whenever appropriate in order to enhance programmatic synergies and cost efficiencies. As a result, TRH integrated preservice education and inservice training in many countries, including Kenya, Malawi, Nepal, Turkey, and Zambia.

Integrating these two training systems entailed:

- Adapting/developing updated national standards and guidelines and ensuring their use in both preservice education and inservice training programs
- Standardizing preservice education and inservice training curricula and ensuring that they
 are harmonized and in line with national standards and guidelines
- Developing a core group of clinical trainers available to meet the needs of both the preservice education and inservice training sectors
- Upgrading healthcare facilities able to serve as shared clinical training sites

Linking the preservice education and inservice training systems in these countries helped to integrate the production and support of human resources, thereby resulting in more effective

human capacity development programs. The case study from Kenya below illustrates how provider performance can be improved through the integration of preservice education and inservice training.

Integrated Preservice Education and Inservice Training Systems Improving the Performance of Providers in Kenya

In Kenya, TRH worked with the Division of Primary Health Care, the Nursing Council of Kenya, and the Division of Nursing to pioneer the development and implementation of an integrated clinical training system used for both preservice education and inservice FP/RH training. This initiative entailed:

- Working with key partners to develop, build consensus for, and institute a national FP/RH preservice education and inservice training strategy for physicians, clinical officers, and nurses.
- Developing a decentralized training center (DTC) system that uses an "echo" training approach to
 effectively decentralize FP/RH training to the districts. This involved developing 10 central-level
 trainers and assisting them in developing and supporting 61 DTC trainers who now staff 13 DTCs,
 which cover training for the entire country.
- Strengthening the skills of 205 tutors and 869 clinical preceptors associated with 15 preservice education institutions.
- Streamlining FP/RH preservice education and inservice training curricula and developing a costsharing system to decrease the expense associated with inservice training.
- Designing and implementing a self-paced FP/RH learning course for nursing students and instituting a FP/IUD certification program within this sector.
- Integrating the three branches of nurse training and education, which resulted in central-level trainers from the Kenya Medical Teaching Colleges (KMTCs) and DTCs training together using a common curriculum; clinical trainers being prepared to provide both preservice education and inservice training; and the sharing of resources among DTC trainers, KMTC tutors, and clinical preceptors.
- Upgrading 75 shared clinical training sites and establishing an on-the-job training (OJT) program in IUD insertion at each of these sites.
- Institutionalizing a Training Information and Monitoring System (TIMS[©]) at the central level to assist the MOH in tracking training and making healthcare provider deployment decisions.

As a result of the establishment of this highly successful integrated training system, more efficient FP/RH training is now conducted each year and the DTCs are able to effectively disseminate national FP/RH guidelines as needed. Specifically, 15,729 service providers and students were trained by this system between 1993 and 2001 in areas such as FP/RH, IP, VCT, and malaria in pregnancy. In addition, this system showed that Kenya's updated FP/RH service delivery guidelines could be efficiently and effectively disseminated to service providers throughout Kenya during a 4-month period of time.

The following case study from Turkey shows how integration of preservice education and inservice training can also lead to improvements in training systems, working relationships between faculty and providers, and relationships between the ministry of health and the educational system.

Coordination between Preservice Education and Inservice Training Strengthened in Turkey

In Turkey, linkages between preservice education and inservice training were made using joint clinical training sites. From the beginning of the project, Turkish counterparts pioneered an integrated clinical training system with joint clinical training centers. By developing a common core group of clinical instructors, and by upgrading integrated clinical facilities, JHPIEGO/Turkey staff/consultants and the MOH have improved both training systems at a much lower cost than would have been the case if the systems had been upgraded independently.

The joint planning process that included MOH and university faculty members helped link the two groups and foster a better working relationship. At the health center level, faculty members and experienced service providers/clinical instructors were trained simultaneously and developed a working relationship, providing preservice education and inservice and refresher training together.

Improvement in the quality of FP/RH education at medical institutions was significant. Because the MOH Central Training Team had been trained in the same methods used for the National Training Team, trust developed between the council and the MOH. MOH trainers understood and recognized the depth of improvement and the quality of the standardized FP/RH training. The Hacettepe University School of Public Health developed a system of routinely reporting to the MOH the names of interns assessed as competent in IUD insertion and removal. Certification was provided by the MOH for these individuals so they could officially provide FP/RH services without additional inservice training.

The TRH approach to strengthening and linking preservice education and inservice training in countries worldwide was guided by JHPIEGO's expanded Framework for Integrated Reproductive Health Training (see **Figure 4**). The expanded Framework illustrates a network of pathways aimed at linking the national system of higher education, the healthcare system, the political system, and cultural norms to strengthen FP/RH planning, policy, training, and services. Within this framework, the educational and health systems work together to prepare a cadre of providers who can deliver standardized, high-quality FP/RH services, apply systems to appropriately deploy these health professionals, and implement programs and initiatives that effectively support them. In addition, service delivery, preservice education, and inservice clinical training follow a single set of evidence-based service guidelines that reflect up-to-date national policy.

Needs Current International Resource Assessment Resource Materials Allocation and Distribution Strategic Advocacy National Policy and Service Guidelines Rewards and Incentives Licensure/Certification Preservice Education Inservice Training for Evaluation in Health Professional Practicing Health Schools Professionals Deployment Followup Service and Qualification of Trainers Clinical Training **New Training** Monitoring **Technologies** Supervision **Systems** Service Delivery Delivery Delivery **Point** Point **Point**

Figure 4. JHPIEGO's Expanded Framework for Integrated Reproductive Health Training

The core of the framework has the following components:

- Needs assessments are conducted at national, institutional, and facility levels. Assessments may encompass the entire health sector, an organization, a discipline, or selected provider performance. They identify constraints to high-quality RH service delivery, prioritize problems in provider performance, devise recommendations, and guide interventions.
- International resource materials and accurate scientific information on FP/RH are essential to the development of national policy and service guidelines in order to maximize the quality of services and eliminate unnecessary barriers to their provision. Use of these evidence-based materials in national programs ensures an updated body of knowledge for both policymakers and FP/RH experts on which to base FP/RH service decisions.
- National policy defines a government's strategy toward FP/RH (e.g., who will receive services, which services will be provided, through which service delivery mechanisms they will be provided, what the standards of quality will be). Service guidelines are more technically focused and specifically address the provision of services (e.g., how each service is to be provided, who should deliver specific services, what counseling should accompany each service, what the minimum requirements are for delivery of each service). Preservice education and inservice training disseminate and promote use of these guidelines in all aspects of service delivery.
- **Preservice education** involves all of the institutions (e.g., schools of medicine, nursing, midwifery) concerned with initial or basic education and training of healthcare providers at all levels. Preservice education is generally less disruptive to the service delivery system, less expensive, and more sustainable than inservice training.
- Inservice training ensures that health professionals already providing services have the opportunity to update their knowledge and skills according to the latest scientific information and practices. Use of interactive, competency-based training helps ensure that skills, as well

as knowledge and attitudes, are transferred and supported through training followup that links learning with the service delivery setting.

- Service and clinical training sites for both preservice and inservice systems are standardized to the national service guidelines with regard to essential equipment, supplies, IP practices, and RH services. Thus, whether they are students, interns, or practicing providers, the participants training at these sites (which are also service delivery sites) complete training with the requisite clinical skills to competently provide a full range of FP/RH services. In this way, clinical training sites link the preservice and inservice elements of the FP/RH system. Linking inservice training to preservice education through clinical training sites that provide the opportunity for students to practice skills under supervision results in a systematic, coordinated training effort.
- Service delivery points are those sites where trained clinical service providers work to provide high-quality RH services. Providers return or are posted to a service delivery point after learning, or continue to work at their site after self-paced learning. These may be community or district health centers, district-level hospitals, or referral hospitals.
- Evaluation approaches assess how well the integrated training system is functioning and what impact it has made on service delivery. Ongoing feedback is provided through monitoring and assessment mechanisms. Formal evaluations are conducted to determine the effect of training methodologies, change in national and institutional capacity to produce competent providers, and ultimately the performance of providers in delivering high-quality FP/RH services.

The Framework also has "peri-program elements," which include processes and interventions and also are known as performance improvement leverage points. The following peri-program elements are essential not only for developing competent healthcare providers, but also for increasing the transfer of learning to the service delivery points, thereby resulting in improved provider performance and the provision of high-quality services:

- Strategic advocacy ensures that delivery of high-quality services and sensitization and consensus-building activities are focused around efficient and rational use of human resources.
- **Licensure/certification** ensures that minimum standards of care are provided by professional cadres of healthcare workers. National-level processes and standards are usually administered through regulations and regulatory bodies.
- **Deployment** means that healthcare providers are assigned to jobs, and there is an emphasis on assigning those trained in specific skills to sites where they can apply those skills in providing services.
- Qualification of trainers is critical in the development of preservice education faculty and inservice trainers. Qualification criteria must be established and related training courses conducted. This process results in the development of clinical, advanced, and master trainers capable of producing qualified healthcare providers.
- **Supervision systems** for regional, district, and local site supervisors are essential in not only helping to establish and maintain sites to provide quality services, but in facilitating the transfer of learning to the healthcare site.

- **Monitoring** is used to determine program performance and identify trends illustrating changed provider performance. Outputs (such as numbers of times a specific service was given in a defined period) are regularly reviewed and tracked.
- Followup helps ensure the transfer of new knowledge and skills acquired during learning interventions to the healthcare site. Trainers must work closely with supervisors as they conduct followup visits. During these visits, trainers can assist healthcare providers in solving problems and applying their new knowledge and skills in the provision of quality services.
- **New learning technologies** must be pursued in developing learning interventions, particularly in light of the increased availability of computers and access to the Internet.
- Rewards and recognition are created by which workers are acknowledged for their performance beyond their usual job description or beyond the existing standards in a facility or catchment area. These rewards (either monetary or non-monetary) and recognition include motivational aspects essential for job performance.
- Resource allocation and distribution occur through a process by which national, provincial, and district budgets are allocated to ministries of health for service delivery and performance efforts, including the mix of funds allocated to training programs (inservice, preservice).

In summary, using the Framework to guide programming and innovative training approaches to meet incountry needs, TRH has made a strong impact on training systems worldwide. The Project exceeded the initial combined targets of TRH II and TRH III, which were to establish preservice education programs in 25 countries and inservice training programs in 21 countries, In fact, TRH established preservice education programs in 28 countries and inservice programs in 37 countries. Furthermore, evaluation studies conducted in countries such as Bolivia, Brazil, the Philippines, Turkey, and Uzbekistan have demonstrated the sustainability and effectiveness of these training systems (see **Table 3**).

Table 3. Results of Evaluations of Key Training Systems under TRH

COUNTRY	REPORT TITLE	RESULT SUMMARY
Kenya	Developing a National Family Planning/ Reproductive Health Clinical Training System in Kenya	The mid-term review documented a very effective and functioning integrated national training system (inservice nursing and medical and preservice nursing) that continues to be sustained even after the new bilateral project was awarded and TRH efforts ended.
Bolivia	Evaluation of JHPIEGO's Assistance to Family Planning/Reproductive Health Inservice Training in Bolivia: 1994–1998	An evaluation of JHPIEGO assistance to the Bolivian health sector to build reproductive health training capacity by establishing nine regional inservice training centers showed that almost all of the original nurse-doctor training teams were still in place and functioning. Building on the well-established inservice training capacity were efforts to strengthen preservice education and training for FP/RH at two medical and five nursing schools.
Brazil	JHPIEGO's Programmatic Efforts in Brazil: Eight Years of Achievements, 1992–2000	The program closeout review documented the comprehensive training systems development work, especially the very successful support from PROQUALI in two key states in Brazil.
Philippines	Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987–1998	A retrospective evaluation confirmed that the preservice nursing/midwifery training systems strengthening had been institutionalized and sustained 3 years after the TRH program closed.
Uzbekistan	Capturing Successes of Clinical Training Systems in Uzbekistan Using a Self-Directed Assessment Paradigm	The results showed that an accessible regional training network was established and well-equipped to handle training needs in Uzbekistan, including curriculum design. The likelihood of sustainability is high because key faculty had already implemented use of competency-based training, and training sites had found ways to use limited resources to continue training with the use of a lending-library system for materials and TALCs for information updates.
Indonesia	Review of Achievements in the Training in Reproductive Health Project in Indonesia (1997–2000)	A review of achievements of the National Clinical Training Network (NCTN) showed that the NCTN successfully transitioned from a donor-funded project and continues to provide training in nearly 90 sites around Indonesia—no small feat, given the great diversity in the country and the variety in funding sources and mechanisms for training. There is a strong foundation upon which to build a more sustainable and cohesive organization for as long as the need for RH clinical training exists.

COUNTRY	REPORT TITLE	RESULT SUMMARY
Turkey	Establishing Integrated Preservice and Inservice National Family Planning/ Reproductive Health Clinical Training Systems in Turkey	A review of 10 years of program efforts in Turkey showed that integrating preservice efforts in medical institutions and vocational and university-based midwifery schools along with inservice training efforts ensured a cost-effective national integrated training system. This system is capable of sustaining high-quality preservice education programs for interns and midwives. The inservice training system established will support the MOH to expand FP/RH training to other provinces while the preservice education system will support all university-based midwifery school students by strengthening their FP/RH and maternal health skills as they progress toward their degree.

Challenges

In working to develop sustainable national training systems worldwide, the TRH Project faced a number of challenges.

- Inservice Training Realities. Although inservice training for RH professionals can be highly effective, it can be costly and place a burden on service delivery programs by increasing healthcare providers' absences from the worksite. Training programs may also find it difficult to maintain the necessary caseload to adequately train all participants in a specified period of time. In addition, once training programs are initiated, participants who are selected for training may not be the most qualified or appropriate trainees available, trained providers may feel burdened by the expectation that they will provide additional services to the ones they already offer, and there may be barriers to the transfer of new knowledge and skills to the worksite. To overcome these multiple barriers to effective inservice training, TRH utilized innovative training technologies such as individualized and distance learning; implemented cost-sharing strategies to reduce the costs associated with inservice training; developed qualifications for training participants and worked with supervisors (through advocacy, use of specific training materials, and followup assistance) to apply these selection criteria and develop plans to assist trainees to transfer their new knowledge and skills to the worksite: and worked closely with trainees to identify and overcome potential barriers to providing new and/or improved services.
- Preservice Education Realities. Challenges that face most preservice education programs include large class size; a lack of reference materials for faculty and students; the need to update and standardize faculty and clinical preceptor knowledge and skills; limited access to the Internet; and insufficient caseloads for practice during clinical teaching. Additionally, some training programs may have little control over clinical training sites, which makes coordination between classroom and clinical teaching difficult. To overcome many of these barriers, TRH worked with preservice education institutions to develop/adapt and supply updated curricula and associated reference materials; facilitate refresher courses for tutors and preceptors in clinical knowledge and skills, clinical training skills, and instructional design; standardize knowledge and practices of classroom tutors and preceptors responsible for clinical practice; refurbish clinical training sites; utilize innovative techniques for learning such as individualized learning; and establish TALCs to improve access to the Internet and computer-based resources.

- The Need for a Long-Term Investment in Preservice Education. Although preservice education produces dramatic and sustained results that directly affect service delivery, it is difficult to demonstrate an immediate impact. In addition, in the short term, preservice education requires more intensive investments than many inservice training programs do. As a result, many USAID missions are hesitant to fund preservice education or provide a long-term commitment to these programs. However, strengthening preservice education has been shown to lead to improved performance of healthcare providers and better quality of services, and to have an impact on providers that lasts long after they complete their education. If USAID's efforts in FP/RH are to have a sustained impact in countries around the world, then increased focus on strengthening preservice education should be made a priority.
- Coordination Required to Link Preservice Education and Inservice Training. Key to the development of effective, integrated training systems is the ability to overcome barriers to coordination and communication among institutions such as the MOH, the ministry of education (MOE), and accreditation and licensing bodies. To enhance coordination and communication associated with integrated training efforts, the TRH Project worked to build multiple partnerships with organizations and governmental bodies in each of the countries where it worked. This ensured that key stakeholders worked together to implement capacity-building initiatives resulting in harmonized programs in line with international standards.

Theme 2: Improving the Enabling Environment for FP/RH Service Delivery at the National Level

An essential element of TRH's work has been the development and institutionalization of national FP/RH service delivery guidelines in line with international standards and national priorities. To this end, TRH has developed or revised national service delivery guidelines in 29 countries worldwide. The following principal achievements provide in-depth examples of how the TRH Project has provided leadership in the development and revision of clinical guidelines and protocols and used these guidelines to strengthen FP/RH policy, training programs, and service delivery efforts.

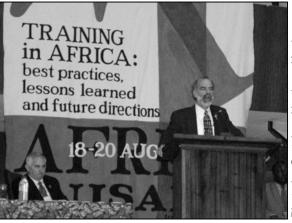


Photo by Gretchen Northern-Kunin

Principal Achievements

Leadership in Developing, Revising, and Disseminating National FP/RH Clinical Guidelines and Protocols

Over the last 10 years, TRH has provided assistance in developing, disseminating, and promoting the use of up-to-date service delivery guidelines, covering multiple content areas, to strengthen FP/RH services in 29 countries. (See **Appendix E** for a list of countries with revised FP/RH guidelines.) The development and use of these guidelines has been a crucial aspect in the improvement of FP/RH services and the reduction of barriers to high-quality care in countries worldwide because they clearly outline what services should be offered at different levels of the service delivery system, who should receive services, and what cadres of health professionals should be authorized to provide specific services. In addition, because these

service delivery guidelines include technical specifications for service delivery, they have been used as a foundation for curriculum development in preservice education and inservice training as well as a guide to service delivery practices.

TRH has become a leader in developing and revising national service delivery guidelines as a result of its extensive experience in this arena and its creation and use of an effective process for developing guidelines. This process, which fosters incountry participation and ownership, entails:

- Advocating for the development/revision of national service delivery guidelines as a platform to improve FP/RH services on a national scale.
- Forming a Technical Advisor Group (TAG), composed of key incountry stakeholders, to oversee the guidelines development/revision process.
- Conducting a FP/RH update for the TAG and ensuring that this group's knowledge is in line with international standards.
- Working with the TAG to draft updated service delivery guidelines in line with national policy, using key incountry materials and international standards.
- Pretesting the draft guidelines to ensure their appropriateness, usefulness, and clarity.
- Finalizing and adopting the guidelines at the national level.
- Disseminating the guidelines throughout the country using techniques that help ensure their effective use.

Two Technical Reports (JHP-08, *Documenting the Reduction of Medical Barriers: A Desk Review of Reproductive Health Service Guidelines in Four Latin American Countries* and JHP-11, *JHPIEGO's Work in Policy: A Comprehensive Review*) provide further details on the TRH approach to developing guidelines.

Central to the TRH approach to standards and guidelines is design and implementation of effective dissemination techniques. These techniques ensure that guidelines are available at healthcare facilities throughout a country and that they are used. To this end, TRH has worked with key partners to develop and rigorously test new approaches to materials dissemination. In addition, TRH has assisted dissemination efforts by:

- Devising dissemination plans as part of the process of developing/updating clinical guidelines.
- Field-testing draft versions of standards and guidelines to check for ease of comprehension, ease of use, and consistency with the reality of service provision.
- Demonstrating the effectiveness of a well-planned dissemination strategy in a study in Kenya. (See Kenya case study, next page.)

Effective and Efficient Dissemination of the Kenya National Reproductive Health Policy Guidelines and Standards for Healthcare Providers⁶

JHPIEGO, in collaboration with Family Health International (FHI) and the Population Council, conducted a study in 2000 to test the feasibility of a new strategy for disseminating updated technical information down to the facility level in a timely, cost-effective fashion. The results showed that when healthcare providers are prepared with a short update and materials to orient their colleagues to new information, they are more likely to have an impact on staff at their service delivery sites. Additionally, when support supervision is provided to sites, positive changes in service provider retained knowledge and stated practices are even more dramatic. This dissemination strategy was used for the National FP/RH Guidelines, The Essentials of Contraceptive Technology, the FHI job aid "How to Make Reasonably Sure a Woman Is not Pregnant," and an orientation package for providers who were unable to attend the update.

Using the national decentralized, integrated training system these materials were disseminated to healthcare providers in 50 districts through FP/RH updates conducted over a 4-month period. After random selection of the study districts, service providers attending the updates were randomly divided into three groups. Group 1 received the standard FP/RH update, Group 2 received this update plus a brief training on how to update fellow staff and an orientation package for use during this process, and Group 3 received the update, orientation package, and support supervision at their sites.

Participants were asked to update colleagues at their home sites, and 15 randomly selected sites also received support supervision. Within a 4-month period, more than 1,200 providers from more than 1,000 sites in 50 districts attended orientation sessions. FHI evaluated the effectiveness of the intervention through changes in knowledge and stated practices. They found that providers who received orientation packages reported updating twice as many coworkers as those who did not, and that overall, providers who attended the workshops updated a mean of 6.5 coworkers. Thus, within a 4-month time period, 7,800 service providers were oriented to the revised standards and guidelines. Healthcare providers who received the update, orientation package, and support supervision at their sites also exhibited the greatest degree of knowledge retention and change in stated practices.

This work in Kenya demonstrated that an active rather than a passive strategy for the dissemination of guidelines results in more positive outcomes. The strategy, utilizing Kenya's decentralized training system, relied on a "cascade" effect, updating providers and giving them the means to update their colleagues. The evaluation gives the most clear-cut evidence to date that FP service delivery guidelines, when correctly disseminated, can improve practices, thereby improving client outcomes, reducing costs, and standardizing practices.

TRH Guidelines and Protocols Used to Shape Policies, Programs, and Delivery of Services

Updated service delivery guidelines and protocols serve as the foundation for many TRH country programs. The classic TRH approach is to incorporate updated revised guidelines into national preservice education and inservice training systems as the basis for the content of all training and education activities. In Malawi, for example, TRH worked with the Ministry of Health and Population (MOHP) from 1999 to 2002 to develop, finalize, launch, and disseminate the most comprehensive RH guidelines document ever produced by the MOHP. These guidelines have been disseminated for use by clinic staff throughout Malawi in the provision and supervision of RH services. The guidelines have also shaped FP/RH policy and have been incorporated into preservice education RH curricula as well as into inservice training FP materials. (See Malawi case study, next page.)

_

⁶ Stanback J et al. 2001. *The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya*. Family Health International: Research Triangle Park, NC. (Final Report)

Standards and Guidelines in Malawi Affect Policy Change That Expands Access to FP/RH Services

In Malawi, TRH-supported development of updated service delivery guidelines influenced a change in national policy that allowed registered nurse/midwives to provide Norplant® implants and comprehensive PAC services, including manual vacuum aspiration (MVA). This important shift in policy improved community access to important FP/RH services because now Norplant and comprehensive PAC can be offered by more health facilities and by lower level facilities, thus moving these services closer to the women who need them.

In addition to influencing national policy, the Malawi Reproductive Health Service Delivery Guidelines have been used to influence deployment policies, licensure and certification requirements, workforce development plans, and participant selection criteria for training.

In addition to Malawi, guidelines and protocols developed by TRH are well integrated into programs and shaping national policy in many countries, including Ecuador, Ghana, Nepal, and Turkey:

- **Ecuador**: Ecuador's Reproductive Health Service Delivery Guidelines, developed with support from TRH and the participation of more than 30 organizations and 200 individuals, now serve as the standard for FP/RH service provision and training at public sector and nongovernmental institutions. The guidelines include modules on FP, selected maternal and perinatal health topics, STIs, HIV/AIDS, cervical and breast cancer, adolescent RH, domestic violence, perimenopause, and infertility.
- **Ghana**: The Ghanaian National protocols, developed with support from TRH and key Cooperating Agencies, are available and used in all health institutions in the country. Results from a training evaluation conducted in Ghana indicate that a majority of practicing midwives are aware of the existence of the protocols and use them on a regular basis.
- Nepal: Guidelines and protocols developed with TRH assistance are the basis of all national training materials for FP, and have been used to develop integrated monitoring checklists that are used by the national quality of care management center. Ownership for the national standards and protocols rests with the MOH's Family Health Division, which uses these documents as the basis for their technical and programmatic discussions with various donors and programs. Furthermore, the national service delivery guidelines developed with TRH assistance have formed the basis for advocacy efforts and FP/RH policy formulation and change. TRH was instrumental in advocating for nurse provision of MVA services and worked in close collaboration with the Safer Motherhood Program, funded by the Department for International Development, to push for this policy change. Without this effort, MVA procedures would be performed only by physicians, and comprehensive PAC services would be inaccessible to most women in the country.
- Turkey: TRH capacity building efforts led to the successful design and use of the National Family Planning Service Delivery Guidelines (NFPSDGs) in 1995. By 1996, the document, which incorporated JHPIEGO, World Health Organization, and other international standards, was disseminated by the MOH to every healthcare facility in the country. Now, the NFPSDGs are in place and updated as needed, training curricula have been revised to be consistent with these guidelines, and a national dissemination strategy has been effectively implemented. Ultimately, the NFPSDGs have been a key element in the improvement and standardization of training programs and service delivery approaches.

Standards and guidelines are also a crucial component of PQI programs, which have a profound effect on the quality of FP/RH service delivery. Within PQI programs, standards and guidelines, developed in collaboration with the community, provide the basis for assessing quality, identifying gaps in quality, and designing interventions to close those gaps. For an example of standards and guidelines as a component of PQI, see the case study from Brazil below.

The Development and Implementation of Operational Performance Standards in Brazil Contribute to Increased Quality of FP/RH Services

PROQUALI, a primary health service recognition program implemented in Northern Brazil by the Bahia and Ceará State Secretariats of Health, the TRH Project, Center for Communication Programs, and Management Sciences for Health, produced dramatic service delivery results within only 18 months. By the end of this period, four of the five participating clinics were officially recognized and functioning to provide high-quality FP/RH services consistent with state-designated FP/RH standards. As a result of these achievements, PROQUALI was expanded to 34 primary care facilities, and the PQI process used by PROQUALI was expanded to the family health program in Ceará State. One of the keys to PROQUALI's success was the development and implementation of operational performance standards with verifiable, objective quality criteria that were used to assess the FP/RH services at participating health facilities. These standards formed the basis for the formal recognition process and were used for self-assessment, self-improvement, and monitoring/evaluation. As part of implementation, local and regional quality improvement support teams were trained in the PQI process focusing on change management, quality criteria and how to achieve them, and mobilization of resources to produce results. Now, clinics that meet the defined standards receive the PROQUALI logo, which is recognized by clients as a result of an associated information, education, and communication campaign.

In summary, TRH's extensive experience in development, revision, and dissemination of standard and guidelines has had a dramatic impact on FP/RH policy, training, and service delivery in countries worldwide. Evaluation studies conducted in a number of countries, including Bolivia, Brazil (Bahia and Ceará states), Guatemala, Kenya, Ghana, Peru, and Turkey, have demonstrated the impact and sustainability of national guidelines developed and disseminated with assistance from the TRH Project. The combined target of TRH II and TRH III was to update FP/RH service delivery guidelines in 20 countries. By developing guidelines in 29 countries, TRH effectively met and surpassed its objectives of program expansion.

Challenges

In developing/revising and disseminating standards and guidelines, the TRH Project faced a number of challenges:

- Development and implementation of national guidelines is a complex process, involving many levels of the healthcare system. There is no one approach to guidelines development that will work in all countries; rather, the process must be tailored to suit each country in which it is undertaken. In a logical framework, FP/RH policy would be set first and national service delivery guidelines would be developed based on that policy. In reality, however, TRH has found that service delivery guidelines are often developed first and then used to influence national FP/RH policy.
- Effective dissemination approaches must take into account the complexities of the preservice education, inservice training, and service delivery systems. Once standards and guidelines are officially adopted, their words must be translated into action through the effective dissemination of the documents. Dissemination and promotion of the completed documents to regional and district levels does not happen just by sending the documents

out; it requires strategic planning, commitment of adequate human and financial resources at both national and peripheral levels, and targeted action on multiple levels of the education and service delivery sectors. Over the last 10 years, TRH has worked to develop and test strategies to assist countries in overcoming the challenge of guidelines dissemination.

Theme 3: Strengthening the Performance of RH Service Providers through the Use of **Innovative Human Capacity Development Approaches**

A key aspect of the TRH Project was the development of cutting-edge human capacity development approaches to improve the performance of FP/RH service providers in an effective, efficient, and sustainable manner (see **Appendix F** for a list of key evaluations of provider performance). To this end, TRH designed and used an instructional design process that fostered incountry participation and incorporation of best practices into new and revised materials; developed innovative learning methodologies to assist training



systems in implementing more effective programs; used technology-based learning approaches to increase access to FP/RH information and courses; established a global network of master trainers able to provide technical assistance to human capacity development efforts in a costeffective manner; and developed and applied computer-based programs to track training and assist in key human resource decisions. As a result of these efforts, TRH improved human capacity development programs worldwide, and governments and international organizations will use its technologies for years to come.

Principal Achievements

Development and Use of an Instructional Design Process to Develop Comprehensive. Competency-Based Materials

TRH used a well developed instructional design process to create comprehensive, competencybased materials for group-based and individualized learning. This was an inclusive process, ensuring that TRH collaborated with a wide range of organizations in the development of its materials. An important element of the process was integration of evidence-based information into the materials, which were then used in both the preservice and inservice arenas to strengthen providers' knowledge and skills. The strengths of the development process, content, and production elements of TRH materials are listed below.

Process

- The decision about whether to develop materials on a specific subject, and what content they should include, was field-driven.
- TRH used internal subject matter expert(s) as lead authors or editors (this helped ensure that materials were consistent with the TRH learning approach and development process and relevant to the field).
- A team consisting of authors, editors, and an instructional designer developed all materials.

- TRH collaborated with other Cooperating Agencies and international organizations to adapt already published materials, if appropriate (this helped reduce time and costs).
- Materials underwent extensive field-testing and external review before final publication to help ensure that they met field needs and the needs of the intended audience.
- When significant new content became available, TRH updated materials by producing a revised edition or a supplement to the original.

Content

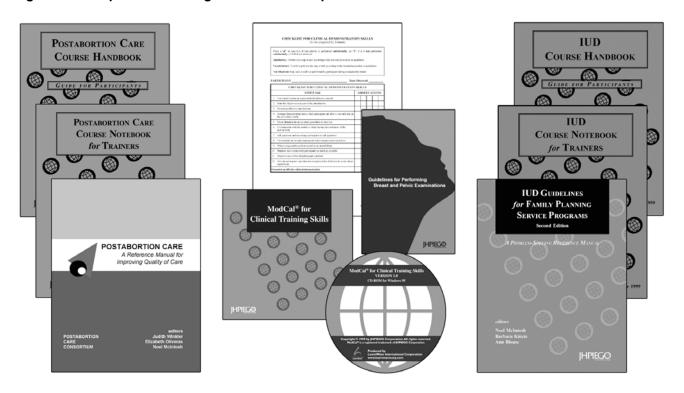
- Learning materials had clear learning objectives that defined the knowledge and skills that participants were expected to acquire.
- Standardized materials helped ensure consistency in the transfer of knowledge and skills and in objective evaluation of participants' performance.
- Reference manuals were written primarily for the participant and served as a content resource on the job.
- Clinical materials used a common structure for content that followed the way services are delivered.
- Materials were based on international standards (e.g., World Health Organization).
- Knowledge and skill assessments were part of the courseware.
- The trainer's notebook included in each learning package provided a detailed outline of how to conduct the course.
- Audiovisual learning aids were developed to accompany learning packages when appropriate.

Production and Publication

- TRH produced materials in a variety of media (print, CD, Internet) to increase cost-efficient access and ease of adaptability and use. Media were chosen based on subject matter and intended audience.
- TRH used Microsoft Word® software to ensure that materials could be easily and efficiently adapted in the field.

Over the life of the Project, TRH developed 11 global and 23 country-specific learning packages, which used group-based, individualized learning, and computer-based methodologies (see **Figure 5**). Topics covered by these packages include breast and pelvic examination, clinical and advanced training skills, instructional design, IP, IUD, Norplant, PAC, and supervision using a performance improvement approach. The central element of each of these packages was the reference manual, which was complemented by a participant's handbook and trainer's notebook (and in the case of the PAC individualized learning package, a supervisor's handbook). In addition to the complete learning packages, many other learning materials on clinical and nonclinical topics also were developed (see **Appendix A**).

Figure 5. Examples of Learning Materials Developed under TRH



Design and Implementation of Innovative Learning Approaches to Increase Training Efficiency and Impact

In meeting its goal to establish effective, sustainable training systems worldwide, TRH developed and applied a number of innovative learning approaches aimed at increasing training efficiency and impact. Alternative learning approaches designed and implemented include:

- Structured on-the-job training (OJT) and other self-paced learning packages to train providers of IUD (Zimbabwe and Kenya), no-scalpel vasectomy (NSV) (Nepal, see case study below), and PAC (Nepal and Zambia) services.
- The award winning, computer-based ModCAL® (Modified Computer-Assisted Learning) training approach. ModCAL, which reduces the time and costs associated with group-based training, was used to improve clinical training skills in Zambia, for example, and IUD knowledge and skills in Zimbabwe and Indonesia.
- Technology-assisted learning centers (TALCs) used to promote computer-based learning and use of the Internet in gathering updated FP/RH information. TRH established 19 TALCS in nine countries (including Haiti, Malawi, and Uganda) during its 10 years of program implementation.

The Individualized Learning Approach to No-Scalpel Vasectomy Successfully Applied in Nepal⁷

In Nepal, the traditional group-based NSV course was modified into an individualized learning approach. Rather than attending a 12-day group-based course, providers worked at one of the three selected clinical sites for NSV. The providers completed the competency-based individualized learning package for NSV, and all achieved competency. After the learning approach had been implemented for 1 year, an evaluation showed that five of the six trainers were able to maintain their clinical duties while facilitating the individualized learning course for providers. In addition, 18 of the 27 providers reported delivering the service at their health posts following the completion of the course. Those who reported never providing the service cited a lack of NSV equipment. The majority of the participants and trainers felt that the training was a highly effective means of transferring NSV skills and knowledge for two reasons—trainers could maintain their clinical responsibilities while training, and providers could be trained continually, minimizing the limitations of caseload. Providers also felt that they had more control over their learning using this methodology.

Use of Technology-Based Learning Products to Improve Global Access to Evidence-Based FP/RH Information

TRH's suite of technology-based learning products has improved access to high-quality, up-to-date FP/RH information for a range of healthcare providers, trainers, faculty, and students. Since 1995, JHPIEGO has made up-to-date scientific FP/RH reference information and learning materials available on the Reproductive Health Online (ReproLine®) website (www.reproline.jhu.edu). From October 2002 to September 2003, ReproLine averaged a total of more than 115,000 visits per month8 from more than 125 countries, demonstrating that it is a widely used resource, and one that is becoming increasingly popular. For example, visits to the Family Planning Section of ReproLine increased substantially from FY02 to FY03, with that section receiving 409,024 visits from October 2002 to September 2003, compared to 308,407 visits from October 2001 to September 2002 (see **Figure 6**).

In a 2003 survey of 709 ReproLine users from more than 75 countries, 59% reported working in RH, and 42% reported their profession as physician, nurse, or midwife. When questioned on their use of the information on ReproLine, respondents reported the following types of use:

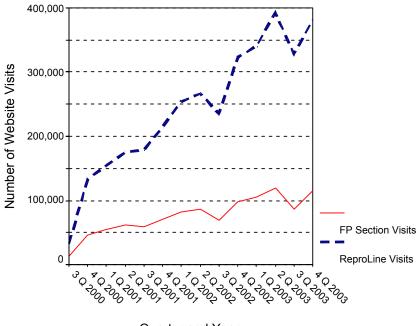
- Improve FP/RH service provision (41%).
- Prepare training or teaching sessions (49%).
- Prepare a report, paper, or journal article (35%).
- Use for professional or academic interest and development (43%).
- Develop policy or national service delivery guidelines (11%).
- Prepare manuals for healthcare professionals (18%).

These survey findings document that ReproLine is a major scientific resource for professional development as well as for updated service delivery information.

⁷ Rawlins B et al. 2002. *A Self-Paced Learning Package for Training in the No-Scalpel Vasectomy Technique: The Experiences of Trainers and Participants in Nepal*. JHPIEGO Technical Report JHP-15. JHPIEGO Corporation: Baltimore, MD.

⁸ A visit is defined as a session that starts when a user comes to the website and browses one or more pages, and ends when the user leaves the site. A visit may constitute hundreds of hits as the viewing of each element (pages, graphics, links, etc.) counts as a hit.

Figure 6. Summary of Use of the ReproLine Website (2000-2003)



Quarter and Year

ReproLine was supplemented by JHPIEGO TrainerNews[®] (JTN), a monthly e-newsletter of FP/RH news and training tips, distributed monthly by e-mail to more than 1,600 subscribers from 80 countries (45 of which are developing countries). A July 2001 survey of JTN readers showed 76% of newsletter users were RH professionals (physicians, nurses, midwives). In addition, 67% of respondents said that they used information obtained from the newsletter most often to improve training programs.

TRH also provided electronic distance learning opportunities to busy healthcare professionals through Internet courses (see case study on an e-mail course, below) and computer-based tutorials. For example, TRH collaborated on the development of a series of tutorials on CD-ROM including those on birth spacing, the Standard Days Method of family planning, and meeting the RH needs of HIV-positive women.

Using the Internet to Increase FP/RH Knowledge: Results of an E-mail Course on the FP/RH Needs of Clients with HIV/AIDS in Limited-Resource Settings

TRH addressed the crucial need for healthcare professionals to have updated, timely information about the integration of FP into HIV/AIDS services through an e-mail-based course entitled "Meeting the Family Planning and Reproductive Health Needs of Clients with HIV/AIDS in Limited-Resource Settings." A total of 164 healthcare professionals with limited time for and access to training increased their knowledge of FP and HIV/AIDS through participation in the 14-week course. The participants represented 30 countries in East and West Africa, Asia, Latin America and the Caribbean. Of the participants, 46.7% provided FP/RH counseling or services and 28.5% were healthcare professionals who cared for HIV clients. At pre-test, only 19% (n=164) of the participants scored 80% or higher (the passing score) while at post-test, 80% of the participants scored 80% or higher, suggesting an overall increase in participant knowledge. As a result of the course, most participants (77%, n=110) indicated they were able to provide improved FP/RH services to clients. This included being able to effectively discuss with clients HIV/AIDS risk behavior, dual protection, issues related to mother-to-child transmission, and appropriate methods of FP.

TRH technology products, or "performance support products," have further served to meet the needs of policymakers and faculty working to develop and update national RH policies and service delivery guidelines, and to improve integrated preservice education and inservice training systems. These products have expanded the ability of training institutions to gain access to updated FP/RH information, which enhances performance, shortens training time, and conserves resources. Particularly important, TRH technology products will continue to provide this support after USAID is no longer working in a country.

Establishment of a Global FP/RH Expert Training/Evaluation Network

As illustrated by the map in **Figure 7**, TRH has established a vast global network of trainers based in three regions and the US. **Table 4** below shows, by region, the number of trainers developed through TRH trainer development programs. (See **Appendix G** for a list of countries with TRH trainers.)

Table 4. Trainers Developed by TRH, by Region

REGION	NUMBER OF TRAINERS
Africa	1,539
Asia ⁹	1,312
Latin America and the Caribbean	683
United States	37
Total	3,571

-

⁹ Asia includes Central, South, Southeast, Near East, and Eastern Europe.

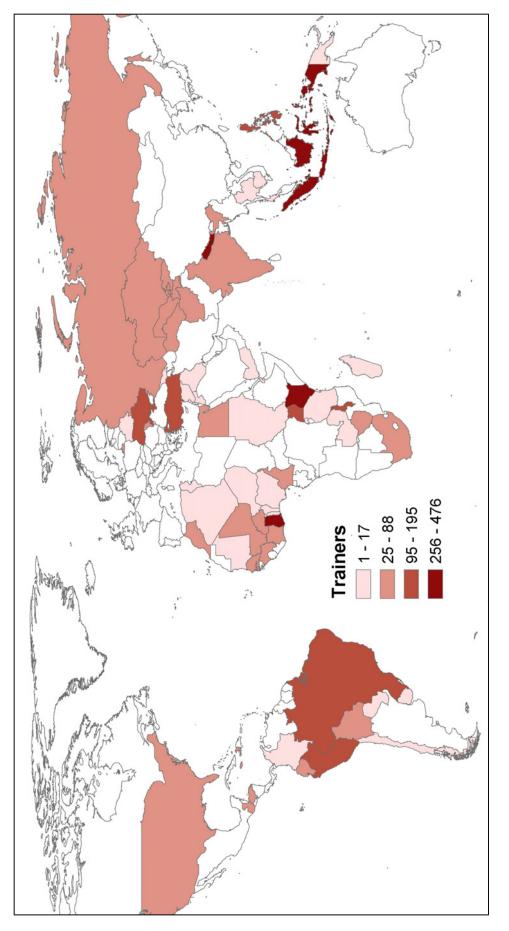


Figure 7. Global Trainer Development Map

The trainer network includes qualified faculty trainers (who have also been trained to conduct evaluations) from nursing, midwifery, and medical schools, and inservice trainers who use JHPIEGO's competency-based approach. Communication and information exchange among members of the network have been facilitated over the years by electronic resources, such as Repronet-L, an e-mail discussion list developed by TRH on reproductive health topics. Other performance support services provided by TRH, such as ReproLine and e-mail courses, have served to link the trainer network to JHPIEGO and other international RH resources to promote communication, technical assistance, and distance learning.

TRH has participated in a number of key initiatives to promote South-to-South collaboration within the global training network, develop leadership skills among members of this network, and expand the network's reach. For example, TRH supported the establishment of the Regional Centre for Quality of Health Care (RCQHC) at Makerere University in Uganda in 1999. The RCQHC has provided leadership in building regional capacity to improve quality of healthcare in Africa by promoting better practices through networking, strategic partnerships, education and training, and direct technical assistance. Over the years, the RCQHC has worked with many USAID Cooperating Agencies to develop and pretest short courses and modules of the diploma course on quality of care. The Centre has provided technical assistance to ministries of health within the region in curriculum and job aid development (e.g., family planning, gender integration, nutrition, maternal and neonatal health, RH), and it organized a "State of the Art Meeting on Improving Quality of Care" in the region (230 participants attended).

TRH also expanded the global training network through USAID's Historically Black Colleges and Universities (HBCU) Initiative. TRH provided support to Morehouse School of Medicine and Charles R. Drew University of Medicine and Science (Drew), two HBCUs, to build staff and faculty capacity to develop and implement programs that strengthen internationally based training systems. An important aspect of the TRH assistance was providing opportunities for the HBCU staff to participate in international FP/RH education and training activities, through which they have been able to acquire experience working in an international setting and receive coaching from JHPIEGO trainers and experts. For example, Drew faculty who participated in TRH training have provided the following technical assistance to field programs in Jamaica, Indonesia, and Peru:

- Jamaica: Clinical trainers assisted with a training needs assessment, contraceptive technology update workshop, clinical training skills course, and instructional design course.
- Indonesia: Clinical trainers co-trained with JHPIEGO staff in conducting an IP course and clinical site visits.
- Peru: A clinical trainer co-trained with JHPIEGO staff in conducting a clinical training skills course.

In addition to supporting the RCQHC and the HBCU initiative, TRH fostered the development of a network of trainers with superb leadership skills through the creation of a Reproductive Health Advisor Program, in collaboration with the Bill and Melinda Gates Institute for Population and Reproductive Health at the Johns Hopkins Bloomberg School of Public Health. This program provided opportunities for outstanding RH professionals from developing countries to pursue a Master of Public Health degree at the Bloomberg School of Public Health. Afterwards, most of the participants were invited to fulfill a 1-year post-graduate position at JHPIEGO to further develop their technical skills prior to returning to their home country. Over the last 10 years, seven RH Advisors have participated in the program, and all are currently working in FP/RH and are active members of the TRH global training network.

Use of Information Systems to Monitor Service Delivery and Human Capacity Development, Collect and Utilize Training Information in Workforce Planning, and Assist in Appropriate Deployment

Tracking the outputs of training and service delivery is essential to planning for human capacity development and for the effective implementation of service delivery programs. Knowing the numbers and locations of students and healthcare personnel provided with in-depth or refresher courses in areas such as FP, IP, long-term and permanent contraceptive methods, and PAC is crucial; it informs decisions regarding credentialing, deployment, and establishment of priorities for training. In addition, MOH staff must be able to effectively monitor service delivery programs. To meet the need of developing countries to monitor education, training, and service delivery programs, TRH developed a Training Information Monitoring System (TIMS®) and other key systems to track training and service delivery. TIMS is a database application that runs within Microsoft Access 2000® (a user-friendly program available and used in developing countries), and has the ability to house key training information and produce reports regarding numbers of students/providers trained in specific technical areas (including dates of training) and location of these providers.

Over the life of the award, TRH has implemented TIMS in Indonesia, Jamaica, Kenya, Malawi, and Nepal (see Malawi case study below). Each of these countries maintains an active TIMS database to track the deployment of trained FP/RH healthcare providers and qualified trainers, providing a valuable resource to the ministries of health and Cooperating Agencies.

Use of a Training Information Monitoring System Helps to Inform Deployment Decisions in Malawi¹⁰

TIMS[©] has been implemented as a joint effort between JHPIEGO and the Ministry of Health and Population's Reproductive Health Unit (RHU) in Malawi. This database can be used to complement a larger human resources information system. It shows the special skills of providers in each district and facility and this information can assist in deployment decisions.

The TIMS[®] database currently houses information on the FP/RH inservice training of nearly 900 service providers throughout Malawi, from 1998–2003. The events tracked in TIMS include clinical skills courses on: minilaparatomy, Norplant implants, multi-method FP, emergency contraception, PAC, STIs, and IP, as well as trainer development courses and FP/RH curriculum development workshops. In addition to aggregate reports showing distribution of trained providers by district and facility, individual transcripts can be produced, showing all FP/RH training activities attended, training skills acquired, and courses taught.

Evidence of the success of the TIMS initiative is that in every venue where it has been set up, it is still operational, and management intends to keep using the software to track training and make human capacity development and service delivery decisions. In addition, requests for new TIMS programs continue to come in.

In addition to TIMS, TRH has also developed a standard PAC logbook with an associated tally sheet, quarterly report form, and computer database, for adaptation in several countries. This system monitors emergency treatment, FP counseling, and RH referrals of PAC patients at the facility level. Aspects of this system have been introduced in Burkina Faso, Guinea, Haiti, and Malawi to track routine PAC service delivery results. TRH has designed and implemented computer databases based on checklists for adherence to IP protocols and for standard PAC

-

¹⁰ Schenck-Yglesias C. 2004. *Malawi Health Human Resource Information Systems: Supporting the Development and Monitoring of Health Human Resource Deployment and Training Policies and Plans.* JHPIEGO Technical Report JHP-24. JHPIEGO Corporation: Baltimore, MD.

supplies to evaluate program performance in various countries, among a series of other data collection tools and databases for monitoring and evaluation.

In summary, to improve FP/RH provider performance, the TRH Project has developed and applied numerous innovative and effective learning approaches that meet incountry program needs. Training systems worldwide have been further developed by TRH through the establishment of a global training network, which has the capacity to provide high-quality training and evaluation assistance in a cost-effective manner. In addition, TRH methodologies and applications continue to be used at the global, regional, and country levels to strengthen training and service delivery systems and make informed decisions regarding human resources.

Challenges

Through its work in developing and applying innovative learning approaches and technologies to improve provider performance, the TRH Project faced a number of challenges:

- An effective materials development process requires time and devoted resources. The TRH materials development process used internal subject matter experts to develop high-quality products; however, these experts had a number of technical assistance obligations to country programs. These obligations reduced the amount of time TRH experts had available for materials development and revision, thus extending the length of time it took to develop materials. Furthermore, field-testing and external review required adequate time and advance planning, which had to be built into the timeline for product development.
- Certain innovative approaches require a support structure to be in place. Innovative technologies such as OJT and individualized learning require that a strong supervisory structure be in place before program implementation begins. To overcome this challenge, TRH outlined a model support structure in the PAC individualized learning package and developed a supervisor's handbook as a part of this package. In addition, in all of the programs in which TRH used the OJT and individualized learning approaches, resources were invested early in the program to ensure that a training infrastructure was strengthened to support the TRH initiative.
- Technology-based learning approaches cannot be used in all training locales. Access to computer-based technologies requires the availability of computers and, at times, the Internet. However, costs and other barriers can hamper regular access to computers and the Worldwide Web in developing countries. To overcome this challenge, the TRH Project established TALCs so that FP/RH professionals could access updated information more easily and participate in computer-based training programs. In some countries, such as Bolivia¹¹ and Haiti, the recurrent costs of TALCs were covered through cost-sharing or revenue development schemes.

-

¹¹ Schenck-Yglesias C et al. 2002. *Increasing Access to Reproductive Health Information in Low-Resource Settings: Evaluation of a Technology-Assisted Learning Center in La Paz, Bolivia*. Technical Report JHP-19. JHPIEGO Corporation: Baltimore, MD.

Theme 4: Improving the Quality of FP/RH Services at Service Delivery Sites

The TRH Project has improved service delivery programs across three regions worldwide through the application of approaches aimed at training and performance and quality improvement (PQI). Through its preservice education and inservice training initiatives, TRH has strengthened service delivery by improving clinical training sites, which are functioning health facilities serving the community. TRH has also improved the quality of FP/RH services through the application of the PQI approach and the strengthening of supervision systems.



Photo by Linda Tietjen

Principal Achievements

Creation of Networks of Standardized Clinical Training Sites

In all of the countries where TRH has strengthened preservice education and inservice training, the Project successfully established networks of service delivery sites that served the clinical training needs of the preservice and inservice programs. These sites were improved by:

- Providing supplies and equipment essential to FP/RH clinical practice and training.
- Strengthening IP practices and other key services provided by the sites.
- Ensuring, through followup support, that sites provided FP/RH services in line with national service delivery guidelines.
- Standardizing the skills of clinical trainers/preceptors assigned to the clinical training sites.

This process not only improved clinical training by developing model sites where trainees could learn new skills; it also immediately improved FP/RH service delivery available to the community. For example, in Turkey, faculty members consistently assessed and improved upon the quality of care provided at TRH-strengthened clinical training sites. ¹² This effort resulted in improved FP/RH service delivery and heightened client satisfaction. Comments such as: "I came here, although it is far from my home [because] the best services are here" were typical of those obtained in client exit interviews at these sites.

In Uganda, a 1999 evaluation of the preservice nursing and midwifery project, which was implemented in nine schools over a 4-year period, showed that all nine clinics continued to offer improved FP/RH services such as STI counseling, IP, and FP. As a result, client numbers increased at these sites by 160% between 1995 and 1999.¹³

¹² Őzek B et al. *Establishing Integrated Family Planning/Reproductive Health Preservice and Inservice National Clinical Training Systems in Turkey*. JHPIEGO Technical Report JHP-18. JHPIEGO Corporation: Baltimore, MD.

Garrison K et al. 2000. The Effectiveness of Strengthening Family Planning Preservice Education for Nurses and Midwives in Uganda: Five Years of Achievements. JHPIEGO Corporation: Baltimore, MD.

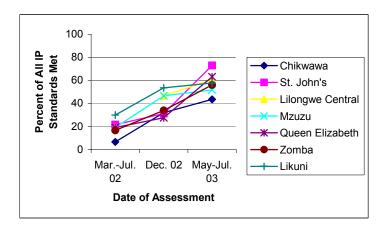
PQI is a powerful and proven approach that can substantially increase the quality of healthcare services in a cost-effective and sustainable manner. To ensure that this approach is widely used in service delivery improvement initiatives, the TRH Project collaborated with USAID and key Cooperating Agencies, through the Performance Improvement Consultative Group (PICG), to define PQI and disseminate lessons learned through its implementation.

Using a PQI process, TRH improved the quality of FP/RH services and IP practices in many countries. TRH began this work in Brazil with the pilot phase of PROQUALI, a primary health service recognition program implemented in northern Brazil. Building on this experience, TRH strengthened numerous service delivery programs in countries such as Burkina Faso, Ghana, Guinea, Jamaica, Malawi, and Senegal. In Malawi, for example, TRH improved IP practices through a PQI-driven initiative (see Malawi case study below).

Practices Strengthened in Malawi through a PQI-Driven Initiative¹⁴

The TRH Project, in collaboration with the National Quality Assurance Task Force, strengthened provider IP performance at seven hospitals in Malawi. As a part of this initiative, national IP performance standards were developed, performance gaps were assessed using the newly developed standards, operational plans were developed and implemented to close identified gaps, coaches and quality improvement support teams were trained to facilitate the PQI process at the local level, and facility improvement was linked to a recognition system. The assessment of this initiative, conducted in 2003, revealed significant improvements in IP practices at each hospital assessed (see figure below). For example, the FP/maternal child health section of Lilongwe Central Hospital met only 16.6% of the IP quality criteria at baseline, but achieved 77.3% at followup.

Figure 8. Percentage of IP Standards Achieved by Seven Participating Hospitals, March 2002–July 2003



_

Rawlins B et al. 2004. *A Performance and Quality Improvement Process to Improve Infection Prevention: Malawi Case Study*. JHPIEGO Technical Report JHP-26. JHPIEGO Corporation: Baltimore, MD.

In addition, a TRH-driven PQI initiative in West Africa improved the quality of PAC services at four national teaching hospitals in Burkina Faso and Guinea (see West Africa case study below).

Postabortion Care Services Strengthened through a TRH-led PQI Initiative in West Africa

In West Africa, the quality of PAC services at four national teaching hospitals in Burkina Faso and Guinea improved substantially after implementation of the PQI process. A baseline assessment using a tool based on operational performance standards for PAC service delivery, developed as part of the PQI process, showed that the two teaching hospitals in Burkina Faso each met 35% of the PAC performance standards, while the two teaching hospitals in Guinea met 25% and 21%. An analysis of performance gaps was conducted and action plans to remedy these gaps developed and implemented by the sites. Sites in both countries showed immediate improvement through recognition and implementation of actions that required no external assistance. Followup assessments in Burkina Faso 3 months later revealed that the two sites had already improved, scoring 68% and 65% overall. In addition, 57% and 53% of the activities identified in the action plans had already been completed. Actions were taken to improve PAC services in the areas of pain management, counseling, availability of FP supplies, and links to other RH services.

Because of the overwhelming success of the PQI approach, which was defined with TRH support, multiple programs implemented by JHPIEGO have now used it. For example, the Maternal and Neonatal Health (MNH) Program has used the PQI approach to improve skilled attendance at birth in five countries worldwide; the SFPS Program effectively used PQI to improve FP/RH services in West Africa; and the bilateral STARH Program in Indonesia used PQI to strengthen the FP/RH performance of service providers.

Strengthened Supervision of FP/RH Providers Improves Service Delivery Programs

TRH has increasingly come to recognize that the ability of providers to perform well on the job depends not only on their capacity (knowledge and skills), but also on a variety of conditions in their work environment that affect their performance. These factors include the level and quality of supervision present, access to sufficient supplies and resources, and opportunities to use new skills after training.

Supervision of providers is frequently equated with visits from external MOH personnel from the district or regional levels. However, TRH demonstrated that on-site supervisors in Kenya, trained in improved supervision techniques using a PQI approach, play an important role in overseeing and improving the quality of FP/RH service delivery at facilities through their daily interactions with FP/RH providers (see Kenya case study, next page).

Improved Supervision Increases the Quality of Family Planning/Reproductive Health Service Delivery in Kenya

To examine the effects of improved supervision by onsite supervisors on the quality of FP/RH services, a supervision study was conducted in Kenya in collaboration with FHI and with support from USAID/MAQ funds. Supervision was strengthened at 28 health facilities across 15 districts in Kenya using a PQI approach to train the onsite supervisors (in-charges). Additionally, 14 National Health Inspectors from the Division of Standards and Regulatory Services (DSRS), the body within the MOH that oversees supervision, were trained at the request of the MOH. The study tested whether the training intervention significantly improved the quality of FP/RH services in clinics compared to the quality of care in control clinics where supervisors did not receive the training. It focused on improving supervisors' knowledge, attitudes, and skills, and used an approach that combined training with followup support, thus enhancing the transfer of learning to the worksite. Based on observations made during followup visits, supervisors and health inspectors had made significant improvements in service delivery. For example, health inspectors oriented the District Health Management Teams (DHMTs) in their regions in supervisory skills and the PQI approach as well as assisted the DHMTs to develop and implement action plans to improve service provision at the facility level.

Findings from the analysis of pretest and post-test data from the on-site supervisor training demonstrate that supervisors at intervention sites were more effective in identifying problems and motivating staff than the control group supervisors. Specifically, supervisors at training intervention sites were more likely to use specific techniques for communicating with staff, assessing staff performance, and making meetings more productive, than their control site counterparts. In addition, when interacting with clients, providers at training intervention sites were more likely than those at control sites to exhibit positive behaviors such as referring to the client by name and asking the client questions, thereby showing that improved supervision has an impact on service delivery practices.

Complementing the findings of the supervision study conducted in Kenya, TRH conducted a study in 2001 to identify the qualities that allow some facilities to excel while others, with access to the same resources, do not. This high-performing site study found that one key factor that influences the performance of exemplar sites is strong management systems and leadership. The high-performing sites assessed generally maintained an open environment for communication and had in place either a strong leader or standard operating systems such as regular staff meetings, and/or performance targets and monitoring mechanisms. As a result of the findings from both the supervision and high-performing site studies, TRH ensured that addressing supervisory systems was a key component of its initiatives to strengthen service delivery. Program staff involved supervisors in program activities through advocacy visits, training, integration into individualized learning programs, and followup support.

The TRH Project's experience in supervision is exhibited in the JHPIEGO learning package *Supervising Healthcare Services: Improving the Performance of People*. This learning package is designed as part of a strategy to improve the performance of health services supervision and the quality of services provided at healthcare delivery sites. Field-tested extensively in Kenya, the package was developed around the performance improvement approach.

38

¹⁵ Reynolds H and C Toroitich-Ruto. 2003. *Draft: Preliminary Results: Evaluation of a Training Program for Onsite, In-charge Supervisors in Kenya to Improve Reproductive Health Quality of Care*. Family Health International: Research Triangle Park, NC. Final evaluation report to be published by Family Health International in 2004.

Rawlins B et al. 2003. *High-Performing Reproductive Healthcare Facilities in Kenya: Why They Exceed Expectations*. Technical Report JHP-22. JHPIEGO Corporation: Baltimore, MD.

TRH also addressed the importance of effective supervision in the publication *Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers*. This guide, developed by PRIME II and JHPIEGO, shares strategies and techniques that can be used before, during, and after training interventions to ensure support for the transfer of knowledge and skills to improved performance on the job. It outlines specific actions for supervisors, trainers, learners, and their co-workers to ensure transfer of learning after a training event.

In summary, the TRH Project strengthened service delivery systems in countries worldwide through its preservice education and inservice training initiatives, application of the PQI approach at target health facilities, and improvement of supervision systems that support the effective delivery of high-quality healthcare services. Innovations and cutting-edge research developed by TRH will continue to be used by countries to inform programs and improve FP/RH services long after the Project has closed.

Challenges

In working to strengthen FP/RH services, the TRH Project faced a number of challenges:

- Shifting from a training to a PQI approach required the investment of time, funds, and human resources. The original TRH mandate was to conduct high-quality FP/RH training. However, over time, TRH's programmatic vision shifted to a more comprehensive PQI approach that addressed the wide range of interventions needed to improve the quality and accessibility of FP/RH services. This shift required the careful investment of time and resources—in hiring new staff with expertise in PQI, developing new training materials, and training all JHPIEGO programming staff and key incountry counterparts in the PQI approach.
- Record-keeping systems in many developing countries make it difficult to monitor service delivery improvements. In many developing countries, the poor quality of record keeping at service delivery sites makes it difficult to track and document changes in clinical outcomes and use of services. To overcome this obstacle to documenting program results, TRH worked with incountry counterparts in a number of countries (e.g., Burkina Faso, Haiti, Malawi, Nepal) to improve both paper-based and electronic record keeping systems.

LESSONS LEARNED

Over the last 10 years, the TRH Project has collected many lessons that will help to improve future programming efforts in FP and RH. Many of these lessons learned are collected in TRH publications and program evaluations (see **Appendix A** for a list of all TRH Project publications) and have been applied by TRH over the years to refine program efforts in countries worldwide.

Important lessons learned by the TRH project include:

Capacity Building

 Strengthening preservice education leads to sustainable training systems and produces competent healthcare providers.

Strengthening preservice education using a competency-based approach leads to sustainable training systems that produce competent healthcare providers able to meet RH service delivery needs, including those for FP and maternal and neonatal healthcare, and

reduces the need for more costly inservice training. This finding is supported by evidence from JHPIEGO's preservice programs in Ghana, the Philippines, and Turkey.

■ The performance and quality improvement approach can dramatically increase the quality of service delivery in FP/RH.

Using the PQI approach can dramatically increase the quality of service delivery, particularly in areas such as PAC and IP. The value of applying the PQI approach in PAC was demonstrated in Burkina Faso, where two PAC service delivery sites met 68% and 65% of PAC standards at followup, compared to only 35% at baseline. And the successful application of PQI to IP was demonstrated in Malawi, where hospital staff made substantial improvements in decontamination and handwashing practices over baseline. The PQI process also helps in the identification of multiple site-based needs, including training needs.

■ Human capacity development approaches must be employed to effectively produce human resources for FP/RH.

National training systems for the production of human resources for health should have an integrated approach across the continuum of learning (from preservice education to inservice training to continuing education). An integrated approach entails setting guidelines regarding appropriate candidates for training, developing staffing projections and needs, designing systems to certify trainers and training sites, tracking training (e.g., using TIMS), and assuring adequate deployment of trainees (i.e., addressing planning and deployment in addition to production).

■ Strengthening linkages between inservice and preservice training improves the effectiveness of both systems.

National training systems should have an integrated approach across the continuum of learning to improve provider performance and service delivery at all levels and ensure an appropriate workforce that can provide quality RH services. Strengthening linkages between the inservice and preservice systems (trainers and clinical practice sites) increases the effectiveness of both systems. Training interventions to improve provider performance should be linked to the preservice education system in order to:

- Strengthen preservice education and reduce need for inservice training.
- Share clinical training sites.
- Use learning materials within both inservice training and preservice education.
- FP/RH services must be improved as part of the development of clinical training sites.

Training site development almost always requires upgrading of services at the site. It is rare to find a site that is already providing model services consistent with national RH standards and guidelines. It is often mistakenly assumed that training site development involves only provision of training materials and training/coaching skills. Experience has shown that service improvements should be addressed as part of training site development.

Reproductive Health Policy

 Expanding the role of nurses and clinical officers increases access to postabortion care services.

Availability and access to PAC services, including FP services, have been greatly increased through expanding the role of nurses and clinical officers as PAC service providers. Changing national policy (e.g., Nepal and Zambia) to enable nurses and midwives to provide life-saving emergency services has been a critical step in expanding access to PAC.

■ Active rather than passive dissemination of service delivery guidelines improves service delivery practices.

Active rather than passive dissemination of high-quality FP service delivery guidelines using "echo" training, as documented in Kenya, leads to the reduction of medical barriers in service delivery. A joint JHPIEGO/FHI study demonstrated that "active rather than passive dissemination of guidelines provides the most clear-cut evidence to date in Africa that family planning service delivery guidelines, when properly disseminated, can improve practices."

Learning Interventions

 Innovative training and learning approaches are effective and efficient mechanisms to conduct clinical training in FP/RH.

Alternative training approaches like individualized learning for PAC and NSV are effective and efficient mechanisms to conduct clinical training, particularly where client caseload is low or irregular. In addition, OJT and computer-assisted learning programs like ModCAL (Modified Computer-Assisted Learning) are as effective in transferring skills and knowledge as group-based training approaches, and can be less costly.

■ The competency-based approach to clinical training has wide applications across content areas (HIV, MNH, cervical cancer).

JHPIEGO's competency-based approach to clinical training has wide applications across content areas, as demonstrated in the training of providers of HIV/AIDS services in Jamaica, South Africa, and Zambia; in the MNH Program to train providers of maternal and neonatal health services in both the preservice and inservice settings; and in the Gates-funded cervical cancer prevention program, which trains providers in cervical cancer screening and treatment.

■ Transfer of learning interventions are essential to ensure that knowledge and skills acquired during training are applied on the job.

The ability to apply and maintain new skills depends on a variety of conditions that affect performance, including supportive supervision, an enabling work environment with sufficient supplies and resources, and opportunities to use new skills after training. Key players in ensuring that knowledge and skills acquired during training are applied on the job include the supervisor, worker as learner, trainer, and co-workers.

■ The Internet can dramatically increase access to FP/RH information for healthcare professionals in developing countries.

The use of the Internet can result in wide dissemination of FP/RH information as demonstrated by ReproLine, which had more than 400,000 visits to the FP section per year.

■ The standardization of preservice training is facilitated by use of a competency-based learning package.

The standardization of teaching among preservice institutions and the implementation of competency-based training are facilitated by the development and use of a learning package (including reference manual and guides for participants and trainers) as part of the preservice strengthening process. Development of such a package should be based on the numerous learning packages for inservice and preservice that already exist, and include expert local stakeholders in the adaptation process. Training materials should be designed, developed, and implemented using principles of instructional design—the systematic development of instruction using adult learning and design theories and techniques—and include a variety of interactive learning methods.

CONCLUSION

Since its inception, the TRH Project worked to improve the health of women and their families worldwide through strengthening training systems, updating service delivery guidelines and influencing national FP/RH policy, improving healthcare provider performance, and strengthening FP/RH service delivery. In doing so, TRH developed numerous state-of-the-art learning methodologies and approaches to human capacity development and service delivery improvement. These approaches have been used widely by TRH as well as by ministries of health, key donors, bilateral projects, and multiple Cooperating Agencies. (See **Appendix H** for a list of selected TRH products and tools adopted by bilaterals and other organizations.) As a result of the TRH Project, sustainable training systems and service delivery improvement programs will continue to strengthen the performance of healthcare providers and FP/RH services worldwide. Furthermore, products and approaches developed by TRH will continue to have an impact on FP/RH services for many years to come.

APPENDIX A BIBLIOGRAPHY OF PUBLICATIONS DEVELOPED UNDER TRH 1993-2004

GLOBAL LEARNING AND REFERENCE MATERIALS

CLINICAL MATERIALS

Breast and Pelvic Examination

Guidelines for Performing Breast and Pelvic Examinations. 2000. L Schaefer, A Blouse, and N McIntosh (eds). Published in English, French, Russian, and Spanish. Corresponding Participant's Handbook and Trainer's Notebook published in English and French.

How to Do a Breast and Pelvic Examination. 2000. Training video produced in English, French, Russian, and Spanish.

Breast and Pelvic Examination: Learning Activity Packet and Facilitator's Guide. 2002. Self-directed learning package for breast and pelvic examination.

Instructions for Using the Breast Self Examination Simulator. 2000. Video with booklet produced in English, French, Russian, and Spanish.

HIV/AIDS

Counseling and Testing for HIV. 2003. Field-test version. Includes Reference Manual, Participant's Handbook, Trainer's Notebook, and Counseling and Testing Protocol Booklet.

Care of Women with HIV Living in Limited-Resource Settings. 2003. CD-ROM containing eight tutorials. All tutorials produced in English, with three of the eight also produced in French and Spanish.

Meeting the Family Planning/Reproductive Health Needs of Clients with HIV in Limited Resource Settings. 2003, 2002. E-mail course.

Infection Prevention and Control

Infection Prevention Guidelines for Healthcare Facilities with Limited Resources. 2003. L Tietjen, D Bossemeyer, and N McIntosh. (TRH provided partial support for printing.)

A Practical Method for High-Level Disinfection of Surgical Gloves. 2000. ReproLearn tutorial.

Infection Prevention for Family Planning Service Programs: A Problem-Solving Reference Manual. L Tietjen, W Cronin, and N McIntosh. Reprinted in English, French, Russian, Spanish, and Portuguese, 1997. Corresponding Participant's Handbook and Trainer's Notebook published in English, French, Portuguese, and Spanish.

Infection Prevention for Family Planning Service Programs. 1994. Training video produced in English, French, Portuguese, Russian, and Spanish.

Intrauterine Devices (IUDs)

ModCal[®] *for IUD Services.* 1999. Includes CD-ROM, Reference Manual, Participant's Handbook, and Trainer's Notebook.

Insertion and Removal of the Copper T 380A IUD. 1998. IUD training video produced in English, French, Portuguese, Russian, and Spanish.

IUD Guidelines for Family Planning Service Programs, second edition. 1993. N McIntosh, B Kinzie, and A Blouse (eds). Published in English, Portuguese, Russian, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook published in English, French, Portuguese, Russian, and Spanish.

IUD Training Slide Set: Copper T 380A Insertion and Removal. 1993. IUD training slide set produced in English, French, Portuguese, and Spanish.

Norplant® Implants

Norplant® Implants Guidelines for Family Planning Service Programs: A Problem-Solving Reference Manual, second edition. 1995. N McIntosh, A Blouse, and L Schaefer (eds). Published in English, French, Russian, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook published in English, French, Russian, and Spanish.

Removal of Norplant® Capsules Using the "U" Technique. 1996. Training video produced in English and French.

Norplant Implants Insertion and Removal. 1993. Training slide set produced in English, French, and Spanish.

Postabortion Care

Postabortion Care Individual Learning Package. 2002. Published in English and French on CD-ROM; includes Learner's Guide, Trainer's Guide, and Supervisor's Guide.

Use of Manual Vacuum Aspiration and Recommended Practices for Processing MVA Instruments. 1996. Training video produced in English, French, and Spanish.

Postabortion Care: A Reference Manual for Improving the Quality of Care. 1995. J Winkler, E Oliveras, and N McIntosh (eds). Produced by the Postabortion Care Consortium in English, French, Portuguese, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook published in English, French, Portuguese, and Spanish.

Postabortion Care: A Global Health Issue. 1994. Video produced by the Postabortion Care Consortium in English, French, Portuguese, and Spanish.

Other Clinical Materials

Birth Spacing to Improve Maternal and Child Health (with Catalyst Consortium). 2004. CD-ROM.

Reproductive Health Online (ReproLine®), 2004. CD-ROM of ReproLine website updated regularly 1998–2004.

Standard Days Method: A Simple Fertility Awareness-Based Method of Family Planning. 2003. (With Institute for Reproductive Health, Georgetown University.). ReproLearn[®] tutorial produced on CD-ROM in English, French, and Spanish.

Instructions for Using the ZOE Gynecologic Simulator. 1998. Video with booklet produced in English, French, Russian, and Spanish.

Atlas for Unaided Visual Inspection of the Cervix. 1997. P Blumenthal.

PocketGuide for Family Planning Service Providers, 1996–1998, second edition. 1996. PD Blumenthal and N McIntosh (authors), E Oliveras (ed). Published in English, French, and Russian.

Service Delivery Guidelines for Family Planning Service Programs. 1996. N McIntosh and E Oliveras (eds). Published in English and French.

PocketGuide for Family Planning Service Providers, first edition. 1995. PD Blumenthal and N Mcintosh (authors); E Oliveras, PA Riseborough, and C Davis (eds). Published in English, French, Russian, and Spanish.

International Family Planning Guide: A Prototypic Reference Manual. 1994. N McIntosh, PA Riseborough, and C Ajello (eds).

Laparoscopic Equipment: Repair and Maintenance Manual. 1994.

Managing Genital Tract Infections (GTIs) in Family Planning Service Programs. 1993. N McIntosh and S Cherry (eds).

MATERIALS ON TRAINING/SUPERVISION

Supervising Healthcare Services: Improving the Performance of People. 2004. K Garrison et al. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English. (Field-test draft published in 2002 on CD-ROM; contains Reference Manual, Participant's Handbook, Trainer's Notebook, and presentation graphics.)

Clinical Training Skills Individual Learning Resource Package. 2004. CD-ROM produced in Spanish contains training video, Participant's Handbook, and Trainer's Notebook.

Effective Teaching: A Guide for Educating Healthcare Providers (Field-Test Version). 2003. (With the World Health Organization.) Includes Reference Manual, Guide for Learners, and Guide for Facilitators.

Training Works! 2003. (With Family Health International, IntraHealth International, Population Leadership Program, and Training Resource Group). Published in English and French. Published in Spanish (2004) for ReproLine website.

Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers. 2002. (With PRIME II/Intrah.) Published in English, French, and Spanish.

Preservice Implementation Guide: A Process for Strengthening Preservice Education. 2002. L Schaefer (ed). (Adapted with permission from the World Health Organization.) Published in English and French. (Spanish translation published with support from MNH Program.)

Advanced Training Skills for Reproductive Health Professionals. 2000. L Schaefer et al. Published in English, French, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook in English, French, and Spanish.

Clinical Training Skills for Reproductive Health Professionals, second edition. 1999. R Sullivan et al. Published in English, French, and Spanish. (First edition, 1995, also published in Portuguese and Russian.) Includes corresponding Participant's Handbook and Trainer's Notebook in English, French, and Spanish.

ModCal[®] *for Clinical Training Skills.* 1999. Includes CD-ROM, Participant's Handbook and Trainer's Notebook.

Instructional Design Skills for Reproductive Health Professionals. 1997. R Sullivan and L Gaffikin. Published in English, French, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook in English, French, and Spanish.

Clinical Training Skills for Reproductive Health Professionals, first edition. 1995. Published in English, French, Portuguese, Russian, and Spanish. Includes corresponding Participant's Handbook and Trainer's Notebook in English, French, and Spanish. Corresponding video produced in English and French.

COUNTRY- AND REGION-SPECIFIC LEARNING MATERIALS

Voluntary Counselling and Testing (for the Caribbean region). 2004. Includes Reference Manual, Participant's Handbook, Trainer's Notebook, and Counselling Protocol Learning Guide.

Competency-Based Training for HIV/AIDS Services (for South Africa). 2003. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook.

Family Planning Update and Use of Auto-Disable Syringe for Service Providers (for the Philippines). 2003. Includes Participant's Handbook and Trainer's Notebook.

Management of Opportunistic Infections: A Reference Manual for Health Workers (for Zambia). 2003. Includes corresponding Participant's Handbook and Trainer's Notebook.

Use of Antiretroviral Drugs: A Reference Manual for Health Workers (for Zambia). 2003. Includes corresponding Participant's Handbook and Trainer's Notebook.

Zambia Infection Prevention Guidelines, first edition. 2003.

Family Planning and Reproductive Health Training Course for Midwives (for Ukraine). 2000. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in Russian and Ukrainian.

No-Scalpel Vasectomy Learning Package for Nepal. 2000. Includes Reference Manual, Participant's Handbook, Trainer's Notebook, and video.

Operation Theatre Technique and Management (for Nepal). 2000. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English and Nepali.

Comprehensive Family Planning (COFP) and Counseling Course Reference Manual (for Nepal). 1999. Includes corresponding Participant's Handbook and Trainer's Guide, in English and Nepali.

Family Planning and Reproductive Health Training Course for Family Medicine Physicians (for Ukraine). 1999. Includes Participant's Handbook and Trainer's Notebook, in Russian and Ukrainian.

Family Planning Reference Manual for Auxiliary Nurse Midwives (for Nepal). 1999. Includes corresponding Participant's Handbook and Trainer's Notebook, in English and Nepali.

Infection Prevention (for Nepal). 1999. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English and Nepali.

IUD Guidelines for Family Planning Programs (for Nepal). 1999. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English and Nepali.

Minilaparotomy under Local Anesthesia (for Haiti). 1999. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in French.

Norplant® Guidelines for Family Planning Programs (for Nepal). 1999. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English and Nepali.

Preservice Family Planning Training Program, Part I, for Junior Internship Ob/Gyn Rotation (for Nepal). 1999. Participant Handbook.

Family Planning and Reproductive Health: Training Course for Ob/Gyn Physicians (for Ukraine). 1998. Includes Participant's Handbook and Trainer's Notebook, in Russian and Ukrainian.

Laparoscopy Under Local Anesthesia: Reference Manual for Nepal. 1998. Includes Participant's Handbook, Trainer's Notebook, and video photoset.

Minilaparotomy Under Local Anesthesia: Guidelines for Nepal. 1998. Includes Reference Manual, Participant's Handbook, Trainer's Notebook, and video.

Laparoscopy under Local Anaesthesia: Manual for Uttar Pradesh. 1997. Includes corresponding Participant's Handbook and Trainer's Notebook.

Minilaparotomy under Local Anesthesia: Reference Manual for Uttar Pradesh. 1997. Includes corresponding Participant's Handbook, Trainer's Notebook, and video photoset.

Postabortion Care (for Nepal). 1997. Includes Reference Manual, Participant's Handbook, and Trainer's Notebook, in English and Nepali.

IUD/GTI Programme: On-the-Job Training (for Zimbabwe). 1996. Includes Trainee's Workbook, Trainer's Guide, and Supervisor's Guide.

Managing STDs in Family Planning Settings in Ghana. 1996. Includes Reference Manual, Participant's Handbook, and Trainer's Materials.

Refresher Course Update on Copper T 380A IUD, Norplant® Implants, DMPA, and Infection Prevention Guidelines (for Indonesia). 1995. Includes Reference Manual, Participant's Handbook, Trainer's Notebook, and Refresher Course Handout.

MAXIMIZING ACCESS AND QUALITY (MAQ)

Maximizing Access and Quality Learning Resources. 2003. CD-ROM produced in English; includes multimedia tutorials on Provider Perspective and Transfer of Learning.

MAQ Exchange. 2003. Participant's Handbook and Trainer's Notebook published in French for Haiti.

MAQ Exchange. 2002. Participant's Handbook and Trainer's Notebook published in English for Nigeria and in Spanish for Honduras.

Improving Performance to Maximize Access and Quality for Clients. 2001. (With USAID Performance Improvement Consultative Group.) (MAQ Exchange PowerPoint Module)

MAQ Exchange. 2000. Participant's Handbook and Trainer's Notebook published in English for Ghana and in Spanish for Guatemala.

MAQ Exchange. 1999. Participant's Handbook and Trainer's Notebook for Romania and Tanzania.

MAQ Bulletin, Vol. 2, January 2003. (With the Academy for Educational Development.) Published in English and French.

MAQ Bulletin, Vol. 1, June 2001. Published in English and French.

MAQ Bulletin, Issue No. 3, 1998. Published in English and French.

MAQ Bulletin, Issue No. 2, February 1996. Published in English and French.

MAQ Bulletin, Issue No. 1, January 1995. Published in English and French.

REFERENCE DOCUMENTS

Recommendations for Updating Selected Practices in Contraceptive Use, Volume II. 1999, 2000. Technical Guidance/Competence Working Group. TRH supported translation and printing of Portuguese and Spanish editions.

TECHNICAL REPORTS

A Performance and Quality Improvement Process to Improve Infection Prevention: Malawi Case Study. B Rawlins et al. (authors), JT Fullerton (contributing ed). 2004. JHP-26.

Evaluation of Postabortion Care Service Delivery in Malawi. C Schenck-Yglesias. 2004. JHP-25.

Malawi Health Human Resource Information Systems: Supporting the Development and Monitoring of Health Human Resource Deployment and Training Policies and Plans. 2004. C Schenck-Yglesias. JHP-24.

Estimating the Need for Family Planning/Reproductive Health Service Providers in Malawi. 2004. JA McGrath, C Schenck-Yglesias, and M Lacoste. JHP-23.

High-Performing Reproductive Healthcare Facilities in Kenya: Why They Exceed Expectations. 2003. B Rawlins et al. JHP-22.

A Matched Case-Control Evaluation of the Knowledge and Skills of Midwives in Ghana Two Years after Graduation. 2003. L Fogarty et al. JHP-21.

Achievements of the National Clinical Training Network in Indonesia (1997–2000): A Review. 2003. A Sulistomo et al. JHP-20.

Increasing Access to Reproductive Health Information in Low-Resource Settings: Evaluation of a Technology-Assisted Learning Center in La Paz, Bolivia. 2002. C Schenck-Yglesias et al. JHP-19.

Establishing Integrated Family Planning/Reproductive Health Preservice and Inservice National Clinical Training Systems in Turkey. 2003. B Özek et al. JHP-18.

Evaluation of the Institutionalization of Family Planning/Reproductive Health Inservice Training in Bolivia. 2003. SJG Brechin et al. JHP-17.

Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987–1998. 2002. M Pons, B Rawlins, and SJG Brechin. JHP-16.

A Self-Paced Learning Package for Training in the No-Scapel Vasectomy Technique: The Experience of Trainers and Participants in Nepal. 2002. B Rawlins et al. JHP-15.

Capturing Successes of Clinical Training Systems in Uzbekistan Using a Self-Directed Assessment Paradigm. 2002. L Agababyan et al. JHP-14.

Strengthening Preservice Midwifery in Ghana: Achievements and Phase 2 Expansion Plans. 2001. SJG Brechin et al. JHP-13.

An Assessment of the Quality of Postabortion Care Services in Nepal: Training and Service Delivery Perspectives. 2001. B Rawlins, SJG Brechin and K Giri. JHP-12.

JHPIEGO's Work in Policy: A Comprehensive Review. 2001. E Oliveras. JHP-11.

Interim Evaluation of an Integrated Adolescent Sexuality Education/Provider Training Pilot Project: Bahia, Brazil. 2001. L Gaffikin and I Rondinelli. JHP-10.

Retention of Training Skills in Family Planning Trainers: Results of a 1997 Trainer Followup Assessment in Zimbabwe. 2001. SJG Brechin et al. JHP-09.

Documenting the Reduction of Medical Barriers: A Desk Review of Reproductive Health Service Guidelines in Four Latin American Countries. 2001. SJG Brechin et al. JHP-08.

Defining a Performance Improvement Intervention for Kenya Reproductive Health Supervisors: Results of a Performance Analysis. 2000. L Cheqe and R Transgrud. JHP-07.

Effectiveness of Contraceptive Technology Update Training: Improved Family Planning/ Reproductive Health Knowledge and Stated Practices of Service Providers in Moldova. 2000. S Suhowatsky et al. JHP-06.

Visual Inspection as a Means of Primary Testing for Cervical Cancer: Results from a Large-Scale Study in Zimbabwe. 2000. University of Zimbabwe/JHPIEGO Cervical Cancer Project. JHP-05.

Improving Performance of Healthcare Providers through Structured On-the-Job Training: A Pilot Test in Zimbabwe and Kenya. 2000. SJG Brechin et al. JHP-04.

PROQUALI: Development and Dissemination of a Primary Care Center Accreditation Model for Performance and Quality Improvement in Reproductive Health Services in Northern Brazil. 1999. SM Blake et al. JHP-03.

Developing a National Family Planning/Reproductive Health Clinical Training System in Kenya. 1999. TM Smith and SJG Brechin. JHP-02.

Strengthening Family Planning and Safe Motherhood Clinical Training in Moroccan Medical Schools: Evaluation of Student Performance. 1999. SJG Brechin et al. JHP-01.

Family Planning/Reproductive Health Skills Assessment of Nurses Finishing Basic Training in 12 Institutions in Kenya. 1998. SJG Brechin, TM Smith, and L Schaefer. FCA-33.

Needs Assessment of Ghana Preservice Medical Training. 1998. J Smith et al. (FCA-31)

Promoting Decentralized Reproductive Health Training: Information System Needs for Coordinated Planning, Monitoring and Evaluation in Kenya. 1997. L Gaffikin, T Smith, and SJG Brechin, FCA-30.

Comprehensive Family Planning Training Evaluation in Nepal. 1997. NC Baughman et al. FCA-29.

Implementing a New Training Approach: Pilot Test of ModCal™ *in Zimbabwe*. 1997. SJG Brechin et al. FCA-28.

Nepal Family Planning Training Strategy: an Update. 1997. R Hughes and N McIntosh. FCA-27.

Assessing the Post-Training Family Planning Service Delivery Skills of Clinical Providers in Kenya. 1997. JJ Valadez et al. FCA-26.

An Evaluation of the Infection Prevention Strategy to Strengthen Reproductive Health Services in Mali. 1997. TE Scialfa et al. TR-01.

Establishing Postabortion Care Services in Nepal. 1996. K Malla et al. FCA-25.

The Effect of Norplant[®] Implants Training on Increasing Access to Family Planning Services: the Senegal and Mali Experiences. M Kerrigan and L Gaffikin. 1996. FCA-24.

Evaluation of Preservice Midwifery and Nursing Reproductive Health Training in the Philippines. 1995. N Vollmer, TF Dean, and J Valadez. FCA-23.

Comparative Assessment of Norplant® Implants Removal Techniques: Indonesia. PD Blumenthal et al. 1996. FCA-22.

Historically Black Colleges and Universities: Progress of the Training Initiative. D Dean and N Braithwaite. 1995. FCA-21.

Integrating Genital Tract Infection and Family Planning Services: Post-Training Assessment in Zimbabwe. SJG Brechin, L Gaffikin, and K Schmeding 1995. FCA-20.

Strategy for Strengthening Reproductive Health Policy, Training and Services in Peru. 1996. G Salvador-Dávila et al. FCA-19.

Indonesia Field Assessment: Subdermal Implant Training Model. A Bongovianni and L Gaffikin.1996. FCA-18.

The Success of Norplant[®] Implants Introduction in the United Kingdom. 1996. L Gaffikin et al. FCA-17.

Postabortion Care Services in Uttar Pradesh, India. 1995. M Kerrigan, L Gaffikin, and R Magarick. FCA-16.

Evaluation of the Medical Intern Minilaparotomy Training Program of Kenya (Phase 3). M Lacoste et al. 1995. FCA-15.

Needs Assessment Report Nepal Certificate of Nursing Program. 1994. S North and R Hughes. FCA-14.

Training Sector Assessment for Reproductive Health: Kenya. 1995. J Weinstein. FCA-13.

Preservice Family Planning Training in Zimbabwe. 1994. L Gaffikin et al. FCA-12.

Proceedings of East and Southern Africa Regional Workshop: Improving Quality of Care and Access to Contraception: Reducing Medical Barriers. 1994. C Davis. FCA-11.

Inservice Training in Client-Oriented Family Planning Services for Lady Health Visitors and Auxiliary Nurse Midwives: An Assessment of Training Needs and a Strategy for Implementing Change. 1995. JHPIEGO for The Innovations in Family Planning Services Project. FCA-10.

A Humanistic Approach to IUD Clinical Training: Results of a Comparative Study in Thailand. C Ajello et al. 1994. FCA-06.

Assessment of Potential Sites for Establishing National Resource Centers to Strengthen Clinical Family Planning Training in Indonesia. 1995. Persatuan Obstetri dan Ginekologi Indonesia (POGI) for the BKKBN, with support from JHPIEGO. FCA-05.

Institutionalizing a Fertility Management Course in the Nursing Schools of Colombia: 1988–1992. L Gaffikin et al. 1994. FCA-04.

Evaluation of Phase 1: Strengthening Voluntary Sterilization Services in the Philippines. 1993. L Gaffikin and P Blumenthal. FCA-03.

Nepal Reproductive Health Training Sector Assessment and Five-Year Action Plan (1993–1998). 1993. N McIntosh. FCA-02.

Private-Sector Involvement in Family Planning Services in Ghana. 1993. L Gaffikin et al. FCA-01.

STRATEGY PAPERS

Performance Improvement: Developing a Strategy for Reproductive Health Services. 2000. Strategy Paper No. 9. N Caiola and RL Sullivan. Available in English.

Human Papillomavirus and Cervical Cancer. 2000. N McIntosh. Strategy Paper No. 8. Available in English.

Establishing Postabortion Care Services in Low-Resource Settings. 1999. A Ghosh, E Lu, and N McIntosh. Strategy Paper No. 7. Available in English and French.

Accelerating the Reduction of Maternal Mortality in Developing Countries. 1997. R Johnson. Strategy Paper No. 6. Available in English.

Delivering Effective Lectures. 1996. Strategy Paper No. 5. RL Sullivan and N McIntosh. Available in English and French.

Infection Prevention: A History of Change. 1996. N McIntosh and L Tietjen. Strategy Paper No. 4. Available in English.

On-the-Job Training for Family Planning Service Providers. 1996. RL Sullivan and T Smith. Strategy Paper No. 3. Available in English.

Why Do We Lecture? 1996. Strategy Paper No. 2. N McIntosh. Available in English and French.

The Competency-Based Approach to Training. 1995. Strategy Paper No. 1. RL Sullivan. Available in English and French.

WORKSHOP REPORTS

Issues in Establishing Postabortion Care Services in Low-Resource Settings. 1999. A Ghosh, D Lewison, and R Lu (eds). Proceedings of a workshop in Baltimore, MD, sponsored by JHPIEGO, 20–21 May. Published in English and French.

Conference on Maximizing Access and Quality of Care (MAQ): Implementing Policies, Norms and Protocols (PNP) for Reproductive Health Services. 1999. Summary report of regional Francophone MAQ conference on 1–4 March 1999 in Dakar, Senegal. Published in French. Highlights published in English and French.

Alternatives for Cervical Cancer Screening and Treatment in Low-Resource Settings. 1997. L Gaffikin et al. (eds). Proceedings of a workshop in Baltimore, MD, sponsored by JHPIEGO, 21–22 May.

Issues in Training for Essential Maternal Health Care. 1997. R Johnson and D Lewison (eds). Report from a workshop in Baltimore, MD, sponsored by JHPIEGO and MotherCare II, 24–26 April 1996.

Globalizing Access to Reproductive Health Information. 1997. Virtual Seminar Review Series. Volume 2. N McIntosh and E Oliveras (eds).

Impact of Information Technology on Higher Education. 1996. Virtual Seminar Review Series, Volume 1. N McIntosh and E Oliveras (eds).

Issues in Management of STDs in Family Planning Settings. 1995. H Sanghvi and D Lewison (eds). Proceedings from a workshop in Baltimore, MD, sponsored by JHPIEGO, 19–21 April.

Learning Without Walls: A Pre-Congress Seminar. 1995. C Ajello et al. (eds). Proceedings from a workshop in Bali, Indonesia, as part of the 15th Asian and Oceanic Congress of Obstetrics and Gynaecology, 13–15 October.

Updating Service Delivery Guidelines and Practices: A Workshop on Recent Recommendations and Experiences. 1995. S Keller (ed). Summary report from a workshop sponsored by Family Health International and JHPIEGO on 6 March 1995 in Guatemala City, Guatemala.

Issues in Cervical Cancer: Seeking Alternatives to Cytology. 1994. PD Blumenthal et al. (eds). Proceedings from a workshop in Baltimore, MD, sponsored by JHPIEGO, 2–4 March.

INFORMATION SHEETS

Improving the Performance of Midwives: Midwifery Preservice Education Strengthened in Ghana. 2003.

Key Factors Influencing High-Performing Healthcare Sites in Low-Resource Settings. 2003.

Case Study: Institutionalization of Reproductive Health Preservice Education in the Philippines. 2002.

Developing and Implementing Standards and Guidelines in Reproductive Health Programs. 2002.

Increasing Efficiency of Training in Postabortion Care Programs: The Zambia Experience. 2002.

Information and Learning Technology for Low-Resource Settings. 2002.

Integrated Family Planning/Reproductive Health Preservice Midwifery Education Established and Functioning in Turkey. 2002.

Preservice Education for Reproductive Health Professionals. 2002.

Strengthening Capacity to Monitor Training and Licensure of Nurses and Midwives: The Malawi Experience. 2002.

Technology-Assisted Learning Centers. 2002.

Clinical Training. 2001.

Framework for Strengthening Reproductive Health Education and Training Systems. 2001.

Historically Black Colleges and Universities (HBCUs). 2001.

Maximizing Access and Quality. 2001.

Postabortion Care (PAC). 2001.

Structured On-The-Job Training (OJT). 2001.

Trainer Development Process. 2001.

Training Information Monitoring System (TIMS). 2001.

ELECTRONIC NEWSLETTERS

TRH Direct. Published in English monthly, June 2000–March 2004.

JHPIEGO TrainerNews®. Published in English monthly, April 1998–November 2003.

OTHER JHPIEGO/TRH PUBLICATIONS

About JHPIEGO, 2003, CD-ROM.

Schenck-Yglesias C. 2003. *Malawi Health Human Resource Information Systems: Supporting the Development and Monitoring of Health Human Resource Deployment and Training Policies and Plans*. JHPIEGO Country Report, May.

Training in Africa: Best Practices, Lessons Learned and Future Directions. 2003. CD-ROM of conference in Lusaka, Zambia, August.

Case Study: Institutionalization of Reproductive Health Preservice Education in the Philippines. 2002. JHPIEGO Corporation: Baltimore, MD.

International Reproductive Health: Challenges, Priorities and Opportunities. Historically Black Colleges and Universities. 2002. CD-ROM of conference in Washington, DC, November.

JHPIEGO on CD-ROM. 2002.

Ndhlovu M, GK Mwale, and R Hughes. 2002. *Helping Women and Their Families through Quality Postabortion Care Services*. JHPIEGO Corporation: Baltimore, MD.

Schaefer L (ed). 2003. *Guide pour la mise en œuvre de la formation de base* (French translation of *Preservice Implementation Guide: A Process for Strengthening Preservice Education*). JHPIEGO Corporation: Baltimore, MD.

Schaefer L (ed). 2002. *Preservice Implementation Guide: A Process for Strengthening Preservice Education*. JHPIEGO Corporation: Baltimore, MD.

Summary Report on TRH Technical Assistance to the Ukraine HIV/AIDS Country Coordinating Mechanism. 2002, June

Training: Best Practices, Lessons Learned and Future Directions. 2002. CD-ROM of conference in Washington, DC, May.

Wash Your Hands. 2002. Job aid produced in English, French, and Spanish.

Wyss S. 2002. JHPIEGO Support to Preservice in Ghana: Concept Paper for FY03-FY05.

Agababyan L et al. 2001. Strengthening Preservice Training Systems: Building a Critical Mass of Clinical Trainers Yields Unexpected Success in Uzbekistan. (Case Study)

Asport S et al. 2001. Technology-Assisted Learning Center at the Universidad Mayor de San Andrés: Helping Connect Bolivia to the Online World. (Case Study)

Family Health International (FHI) with JHPIEGO and the Kenya Guidelines Update Evaluation Study Group. 2001. *The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya.* FHI and JHPIEGO.

Historically Black Colleges and Universities Training Initiative: Moving Beyond Capacity Building. 2001. JHPIEGO Corporation: Baltimore, MD.

Rawlins B et al. 2001. Focusing on What Works: A Study of High-Performing Healthcare Facilities in Kenya. JHPIEGO Corporation: Baltimore, MD.

Welsh E et al. 2001. *An Orientation Package for Health Care Workers on Voluntary Counselling and Testing Services in Kenya*. Kenya Ministry of Health, National AIDS and STD Control Program (NASCOP) and JHPIEGO.

Saat Z et al. 2000. Evaluation Report of Strengthening Family Planning Training Project Conducted in Eight Vocational High Schools and Two University-Based Midwifery Schools: 1998–1999 Educational Year. General Directorates of Turkish Maternal and Child Health and Family Planning and Health Training and JHPIEGO Turkey Office.

Fernandez RL et al. 1999. *Pilot Testing ModCal™ for Inservice and Preservice Family Planning Training in the Philippines*. JHPIEGO Corporation: Baltimore, MD.

Pfitzer A et al. 1999. Status of Norplant® Programs in West and Central Africa and Haiti: A Self-Assessment. JHPIEGO Corporation: Baltimore, MD.

Schaefer L, B Bajracharya, and J Rideout. 1999. *Midterm Review of the Institute of Medicine/JHPIEGO Proficiency Certificate Level Nursing Program in Nepal*. JHPIEGO Corporation: Baltimore, MD.

Diabaté Diallo F, K Jesencky, and C Peterson. 1998. *Followup Postabortion Care Visit, Burkina Faso, 2–16 March 1998.* JHPIEGO Corporation: Baltimore, MD.

Janoski S and W Shasha. 1998. *Promoting Decentralized Inservice Clinical Training:*Assessment of Nine Potential Training Sites in Selected Departments of Haiti. JHPIEGO Corporation: Baltimore, MD.

Özek B et al. 1998. On-the-Job Training through Follow-Up Visits to Improve the Quality of Family Planning Services. JHPIEGO Corporation: Baltimore, MD. (Turkey Country Report)

Vogel R, M Ahnan, and L Schaefer. 1998. *An Assessment of Social Marketing Pakistan Clinical Training Activities*. JHPIEGO Corporation (for Social Marketing Pakistan, Karachi, Pakistan): Baltimore, MD.

Dean D and N Braithwaite. 1997. *Historically Black Colleges and Universities: Progress of the Training Initiative Project*—Year 2 Report. JHPIEGO Corporation: Baltimore, MD.

Hughes RS and AM Peniston. 1997. *Postabortion Care in Ambulatory Settings: The PAC Program in Nepal.* JHPIEGO Corporation: Baltimore, MD.

MacDonald P. 1997. *Issues for Training in Essential Maternal Health Care in Indonesia*. JHPIEGO Corporation: Baltimore, MD.

Performance Improvement for Quality Reproductive Health Services. 1997. Booklet published in English, French, and Spanish.

Approach to Training. 1996.

The Effectiveness of Model-Based Training in Accelerating IUD Skills Acquisition. 1995. K Limpaphayom et al.

PRESENTATIONS

Curran K and T Hylton-Kong. 2004. *Applying TRH Training Principles to Expanding HIV Voluntary Counseling and Testing Services in Jamaica and the Caribbean Region*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Garrison K and Bimo. 2004. *Performance Improvement and Quality Reproductive Health Services: Moving from Training to Performance Improvement*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Griffey S. 2004. Lessons Learned and Results Achieved in Strengthening National Service Delivery and Training Systems. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Hughes R and V Mtonga. 2004. *Scaling up Postabortion Care Services: Lessons Learned*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Lacoste M and J Namasasu. 2004. Strengthening Human Capacity in Malawi to Ensure High-Quality Reproductive Health Care Services: Innovations and Lessons Learned. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Lynam P. 2004. Changing Provider Practices to Improve Service Delivery: What Do We Know? What Can We Do? Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Magarick R. 2004. *Training in Reproductive Health: Major Accomplishments*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Necochea E. 2004. Moving Beyond Training—Standards-Based Management: A Promising Approach to Improving Service Delivery in Reproductive Health. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Sanghvi H. 2004. *The Evolution of Preservice Education in Reproductive Health*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Schenck-Yglesias C. 2004. *Using Geographical and Training Information Systems for FP/RH*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Sullivan R. 2004. A Systems Approach to Strengthening FP/RH Service Delivery. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Sullivan R, T Norton, and N Culbertson. 2004. *Innovative Learning Approaches to Strengthen Service Delivery and Provider Performance: Results and Future Directions*. Presentation at Training in Reproductive Health "Strengthening Provider Performance in Reproductive Health: Innovations, Lessons Learned, and Results Achieved" Conference. Washington, DC, 2 March.

Bossemeyer D. 2003. *Improving Infection Prevention Practices and Environmental Hygiene in Malawi: A Performance and Quality Improvement (PQI) Process.* Presentation at Global Health Council Annual Conference. Washington, DC, 29 May.

Fogarty L, S Wyss, and A Kyei. 2003. *Results of a Strengthened vs. Standard Preservice Midwifery Curriculum in Ghana*. Presentation at Johns Hopkins All University Seminar on Africa (HAUSA). Baltimore, MD, 21 March.

Schaefer L. 2003. *How to Strengthen Preservice Education Systems*. Presentation at Global Health Council Annual Conference. Washington, DC, 27 May.

Kyei A et al. 2003. *Strengthening Preservice Midwifery Education in Ghana*. Poster Presentation at Global Health Council Annual Conference. Washington, DC, 27–30 May.

Rawlins B et al. 2003. *High-Performing Healthcare Facilities in Kenya: Why They Exceed Expectations*. Presentation at Global Health Council Annual Conference. Washington, DC, 28 May.

Schenck-Yglesias C and M Lacoste. 2003. *Malawi Postabortion Care Evaluation: Beyond Clinical Performance Measures*. Presentation at Johns Hopkins All University Seminar on Africa (HAUSA). Baltimore, MD, 21 March.

Schenck-Yglesias C, M Lacoste, and J Gondwe. 2003. *Linking Information Systems to Track the Deployment and Training of Family Planning/Reproductive Health Human Resources in Malawi*. Presentation at Eighth International Congress in Nursing Informatics. Rio de Janeiro, 24 June.

Schenck-Yglesias C et al. 2003. *Increasing Access to Reproductive Health Information in Low-Resource Settings: Lessons Learned from the Establishment of a Technology-Assisted Learning Center in La Paz, Bolivia*. Presentation at Health Information and Publications Network Conference. Washington, DC, 18 June.

Schenck-Yglesias C, L Schaefer, and SG Brechin. 2003. *Using the Training Information Monitoring System (TIMS) to Track Health Human Capacity Building in Developing Countries*. Presentation at Eighth International Congress in Nursing Informatics. Rio de Janeiro, 24 June.

Sullivan R. 2003. *Delivering Winning Presentations*. Presentation at Global Health Council Annual Conference. Washington, DC, 27 May.

Anderson J. 2002. *The Clinical Care of Women with HIV Infection*. Presentations at Annual Meeting of Medical Association of Jamaica. Montego Bay and Kingston, Jamaica, 27–28 July.

Anderson J et al. 2002. A Multimedia Educational Tool Addressing Care and Support Needs of Women with HIV Living in Limited-Resource Settings. Poster Presentation at Fourteenth International Conference on AIDS. Barcelona, July.

Curran K. 2002. *The Caribbean Regional Voluntary Counselling and Testing Programme*. Presentation at Annual Meeting of Coalition of National AIDS Programme Coordinators. Georgetown, Guyana, 30 October.

Damiba A. 2002. Experiences of the Family Health and AIDS Prevention Project in West Africa. Presentation at Conference on "International Reproductive Health: Challenges, Priorities and Opportunities for Historically Black Colleges and Universities." Washington, DC, 20 November.

Gachuhi D and P Lynam. 2002. *Taking Training to Learners: Reaching Large Numbers of Kenyan Providers*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Garrison K. 2002. *An Orientation to the Performance Improvement Process*. Presentation at International Society for Quality in Health Care (ISQUA) Conference. Paris, 7 November.

Garrison K and L Voltero. 2002. *A Performance Improvement Approach*. Presentation at Global Health Council Annual Conference. Washington, DC, 29 May.

Giri K. 2002. *Advances in Contraceptive Technology*. Presentation at Conference on "International Reproductive Health: Challenges, Priorities and Opportunities for Historically Black Colleges and Universities." Washington, DC, 20 November.

Harber L and D Bossemeyer. 2002. *An Interactive Introduction to PRIME and JHPIEGO's "Transfer of Learning" Guide*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Hornby P, S Ozcan, and C Schenck-Yglesias. 2002. *Human Resources for Health Modeling Exercise: Scenarios and Strategies*. Presentation at Malawi Ministry of Health Stakeholder Meeting. Lilongwe, Malawi, 10 December.

Hughes R et al. 2002. *Expanding Postabortion Care Services in Zambia: Lessons Learned in Scaling Up a National Program.* Presentation at American Public Health Association Annual Meeting. Philadelphia, PA, 13 November.

Lacoste M. 2002. *Training Information Monitoring System*. Presentation at "Expanded Support to AIDS and Family Health (STAFH) Project" Meeting. Lilongwe, Malawi, 31 May–1 June.

Lacoste M and D Malema. 2002. *The Status of the National Postabortion Care Programme in Malawi*. Presentation at "Expanded Support to AIDS and Family Health (STAFH) Project" Meeting. Lilongwe, Malawi, 31 May–1 June.

Lacoste M et al. 2002. *Performance and Quality Improvement: Developing and Implementing National Infection Prevention Standards in Malawi*. Presentation at ECSACON Quadrennial Meeting and Sixth Scientific Conference. Dar es Salaam, Tanzania, 6 August.

Lacoste M et al. 2002. Establishing an Electronic Nursing Registry at the Nurses and Midwives Council of Malawi: More Effective Use of Personnel Data for Planning and Decision-Making. Presentation at ECSACON Quadrennial Meeting and Sixth Scientific Conference. Dar es Salaam, Tanzania, 6 August.

Lynam P. 2002. *Self-Directed and Distance Learning*. Presentation at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Lynam P and T Pleah. 2002. *Using On-the-Job Training for Expansion of Postabortion Care Services*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Lynam P, M Islam, and W Campbell. 2002. *Standards and Guidelines*. Presentation at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Magarick R. 2002. *Learning a Clinical Skill: Competency-Based Training Using Anatomic Models*. Presentation at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Ncube L and S Msokera. 2002. *Development of Malawi National Infection Prevention Standards within a Performance Improvement Approach*. Presentation at "Expanded Support to AIDS and Family Health (STAFH) Project" Meeting. Lilongwe, Malawi, 31 May–1 June.

Ncube L and P Gomez. 2002. *Developing Effective Trainers for Sustainable Training Systems: Lessons Learned*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Necochea E. 2002. *CaliRed: A Performance and Quality Improvement Model for Maternal and Neonatal Health Services in Guatemala*. Presentation at International Society for Quality in Health Care (ISQUA) Conference. Paris, 7 November.

Necochea E. 2002. *Towards a New Approach for Supervision* and *Accreditation of Health Care Organizations*. Presentations at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Necochea E and Intrah/PRIME. *Performance Improvement: Gap Analysis and Cause Analysis*. Presentation at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Norton T. 2002. *Increasing Access to Reproductive Health Information in Low-Resource Settings: Lessons Learned from the Establishment of a Technology-Assisted Learning Center in La Paz, Bolivia.* Presentation at American Public Health Association Annual Meeting. Philadelphia, PA, 13 November.

Otolorin E. 2002. *Postabortion Care, Male and Female Sterilization*, and *Norplant Implants*. Presentations at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Pleah T and R Mason. 2002. *Postabortion Care Services*. Presentation at Conference on "International Reproductive Health: Challenges, Priorities and Opportunities for Historically Black Colleges and Universities." Washington, DC, 20 November.

Rawlins B, K Garrison, and P Lynam. 2002. *Focusing on What Works: A Study of High-Performing Health Facilities in Kenya.* Presentation at American Public Health Association Annual Meeting. Philadelphia, PA, 12 November.

Rivera R, D Otolorin, and R Magarick. 2002. *Longer-Term Methods: Update on Intrauterine Devices (IUDs) and Norplant*. Presentation at Inter-Country Meeting with Partners and Country Teams. Giza, Egypt, 9–13 February.

Schaefer L and S Stemmler. 2002. *Strengthening Preservice Education: Developing the Next Generation of Family Planning/Reproductive Health Providers*. Presentation at Conference on "International Reproductive Health: Challenges, Priorities and Opportunities for Historically Black Colleges and Universities." Washington, DC, 20 November.

Schaefer L, S Wyss, and B Özek. 2002. *Strengthening Preservice Education: A Systematic Approach and Lessons Learned*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Stanback J et al. 2002. Cascade Training Works: Evaluating the Effectiveness and Efficiency of National Dissemination of Updated Family Planning Guidelines in Kenya. Presentation at American Public Health Association Annual Meeting. Atlanta, GA, 22 October.

Sullivan R. 2002. *Developing Group and Individualized Learning Materials*. Presentation at "Training: Best Practices, Lessons Learned and Future Directions" Conference. Washington, DC, 22–23 May.

Sullivan R, L Schaefer, and S Brechin. 2002. *Developing the Next Generation of FP/RH Service Providers: The Role of Preservice Education in National FP/RH Programs.* Presentation at U.S. Agency for International Development. Washington, DC, 3 April.

Schenck-Yglesias C. 2002. *Using GIS to Explore Health Human Resource and Reproductive Health Indicator Data for the Malawi Ministry of Health and Population.* Presentation at American Medical Informatics Association Symposium, San Antonio, TX, 13 November.

Schenck-Yglesias C et al. 2002. *Increasing Access to Reproductive Health Information in Low-Resource Settings: Lessons Learned from the Establishment of a Technology-Assisted Learning Center in La Paz, Bolivia*. Presentation at American Public Health Association Annual Meeting. Philadelphia, PA, 13 November.

Sullivan R and B Williams. 2002. *Competency-Based Approaches to Clinical Training*. Presentation at Conference on "International Reproductive Health: Challenges, Priorities and Opportunities for Historically Black Colleges and Universities." Washington, DC, 20 November.

Garrison K. 2001. *Clinical Supervision for Performance and Quality Improvement*. Presentation at MAQ (Maximizing Access and Quality) Mini-University. Washington, DC, 20 April.

Garrison K. 2001. *Improving Worker Performance*. Presentation at World Health Organization. Geneva, Switzerland, 5 September.

Litch JA. 2001. *Contraception for Adolescents*. Presentation at Annual Conference of Nepal Society of Obstetricians and Gynaecologists. Kathmandu, Nepal, 10 April.

Litch JA. 2001. *National Medical Standards for Contraceptive Services in Nepal.* Presented at Department of Health Services Annual National Performance Review Meeting 2000–2001. Kathmandu, Nepal, 27 September.

Norton T and N Likhite. 2001. *Methodologies for Evaluating Information Technology Use.* Presentation at Population and Health Materials Working Group 2001 Internet Conference. Baltimore, MD, 9 January.

Otolorin EO. 2001. Strategies for Improving the Quality of Reproductive Health Services. Keynote address at World Health Organization's Regional Symposium for Policy Makers, Program Managers and Heads of Reproductive Health Research Institutions (Africa and Eastern Mediterranean). Nairobi, Kenya, 23–26 September.

Sanghvi H. 2001. *Medical Treatment of Incomplete Abortion*. Presentation at MAQ (Maximizing Access and Quality) Mini-University. Washington, DC, 20 April.

Shaver T and B Kinzie. 2001. *Antenatal Care: Old Myths, New Realities*. Presentation at MAQ (Maximizing Access and Quality) Mini-University Washington, DC, 20 April.

Sullivan RL. 2001. *Delivering Winning Presentations*. Presentation at Global Health Council Annual Meeting. Washington, DC, 29 May–1 June.

Andere D. 2000. Support Supervision in Kenya and Uganda. Presentation at REDSO/ESA Meeting on Improving Quality of Care: State of the Art 2000. Entebbe, Uganda, 7–11 February.

Bossemeyer D and A Payne-Merritt. 2000. *Focused Accreditation of Reproductive Health Services in Brazil: The PROQUALI Program*. Presentation at "Managing Quality Through Regulation: Priorities and Possibilities" Meeting on Regulation, Licensure, Accreditation, and Certification. National Press Club, Washington, DC, 4–5 October.

Brechin SJG. 2000. It Takes a While But It's Worth It! The Effect of Strengthening Preservice Nursing and Medical Education Programs to Improve Performance of FP/RH Service Providers. Presentation at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

Brechin SJG et al. and Bolivian Regional Training Center Teams. 2000. *Evaluation of the Institutionalization of FP/RH Inservice Training in Bolivia: 1994–1998.* Poster presented at American Public Health Association Annual Meeting, Boston, MA, 12–16 November.

Gaffikin L et al. 2000. Visual Inspection as an Alternative to Cytology for Cervical Cancer Screening: Results from a Study in Zimbabwe. Presentation at 4th International Multidisciplinary Congress, Eurogin 2000: Global Challenge of Cervical Cancer Prevention. Paris, 5–9 April.

Garrison K. 2000. *How Do I Evaluate Preservice Education Programs? Let Me Count the Ways. . . .* Presentation at American Public Health Association Annual Meeting, Boston, MA, 12–16 November.

Gilson G and A Parekh. 2000. *Hospital Maternal Mortality in Honduras: The Role of Providers and the Health System in Maternal Death.* Presentation at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

Janoski S, J-R Brutus, and J Pierre-Louis. 2000. *Establishing an Online Computer Resource Center at a Health Training Institute in Haiti*. Poster presented at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

Lacoste M and D Andere. 2000. *Infection Prevention: Better Practices for a Safer Environment.* Presentation at USAID/Community Health Partnerships Quarterly Meeting. Magochi, Malawi, 6 April.

Lacoste M and L Ncube. 2000. *Better Practices for a Safer Environment*. Presentation at USAID/Support to AIDS and Family Health Project Quarterly Meeting. Lilongwe, Malawi, 21 September.

Lynam P. 2000. *On-the-Job Training and Applications to Postabortion Care*. Presentation at REDSO/ESA Meeting on Improving Quality of Care: State of the Art 2000. Entebbe, Uganda, 7–11 February.

Macias J. 2000. Stirring up the Winds of Change: How Policy and Advocacy in Preservice Programs Lead to Expanded and Unexpected Results. Presentation at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

McIntosh N. 2000. *Prevention of Postpartum Hemorrhage and Treatment of Incomplete Abortion with Misoprostol*. Presentation at West African College of Surgeons Annual Meeting. Kumasi, Ghana, 21–26 February.

Necochea E. 2000. *PROQUALI: A Performance and Quality Improvement Model for Accreditation of Primary Health Clinics in Reproductive Health*. Presentation at LoveLife International Meeting. Johannesburg, South Africa, 24–26 January.

Otolorin E. 2000. *Clinical Training Skills ModCal*[®]. Presentation at REDSO/ESA Meeting on "Improving Quality of Care: State of the Art 2000." Entebbe, Uganda, 7–11 February.

Otolorin EO. 2000. *Improving the Quality of Maternal and Neonatal Health through Evidence-Based Decision-Making*. Presentation at Uganda Ob/Gyn Society, Kampala, Uganda, 15 November.

Otolorin EO. 2000. *Innovative Approaches Towards Reducing Maternal and Neonatal Mortality and Morbidity in East, Central and Southern Africa*. Presentation at Commonwealth Regional Health Ministers' Conference, Mbabane, Swaziland, 23–26 October.

Qureshi Z. 2000. *Using a Pregnancy Checklist to Reduce Barriers*. Presentation at REDSO/ESA Meeting on "Improving Quality of Care: State of the Art 2000." Entebbe, Uganda, 7–11 February.

Schaefer L. 2000. But I Already Know How to Teach: Strengthening Faculty Performance for Improved Student Learning. Presentation at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

Smith T. 2000. *Congratulations, You're Licensed to Practice: Assessing Service Delivery Performance.* Presentation at American Public Health Association Annual Meeting. Boston, MA, 12–16 November.

Brechin SJG. 1999. Strengthening Family Planning/Reproductive Health Training in Basic Nursing Education in Kenya. Presentation at Global Health Council Annual Meeting. Arlington, VA, 21 June.

Brechin SJG and T Smith. 1999. *Developing a National FP/RH Clinical Training System in Kenya. A Review Conducted for the USAID/Kenya APHIA Midterm Review*. Presentation at the Ministry of Health, Division of Primary Health Care Meeting. Nairobi, Kenya, 30 March.

Broekhuizen F and R Lu. 1999. *Managing First Trimester Incomplete Abortion with Misoprostol.* Presentation at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

Damiba A, A Ghosh, and A Pfitzer. 1999. *From Assistance to Partnership: Fostering Health in Africa*. Poster presented at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

Gaffikin L. 1999. *Improving the Performance of Cervical Cancer Screening Using Visual Inspection Through Adjunctive HPV Testing*. Presentation at National Advisory Meeting "Cost-Effectiveness of HPV Screening for Cervical Cancer in Older Women." Washington, DC, 15 April.

Gaffikin L. 1999. Visual Inspection with Acetic Acid for the Cervical Cancer Screening: Test Qualities in a Primary Setting. Presentation at Cervical Cancer Consortium Meeting. Tunis, Tunisia, 26–31 January.

Ghosh A. 1999. *Preservice Education and Training: Developing Sustainable RH Programs*. Presentation at Global Health Council Annual Meeting. Arlington, VA, 21 June.

Ghosh A. 1999. Why a Postabortion Care Strategy? Presented at Workshop on "Establishing Postabortion Care Services in Low-Resource Settings." Baltimore, MD, 20–21 May.

Ghosh A and SJG Brechin. 1999. *Training the Next Generation of FP/RH Providers: The Role of Preservice Education in National FP/RH Service Programs*. Presentation at USAID. Washington, DC, 15 September.

Ghosh A and R Lu. 1999. *Increasing Access to PAC Services: Results of an Inter-Agency Workshop.* Presentation at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

Ghosh A et al. 1999. . . . But Can She Deliver a Baby? Strengthening Basic Midwifery Training in Ghana. Presentation at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

Kamali K et al. 1999. Strengthening National Reproductive Health Training Information Systems in Indonesia, Kenya and Nepal. Presentation at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

McIntosh N. 1999. *Cervical Cancer Screening in Low-Resource Settings*. Presentation at 39th Annual Conference of the West African College of Surgeons. Conakry, Guinea, 25 February.

Pfitzer A. 1999. *Medical Education in Morocco: Strengthening Family Planning and Safe Motherhood Training in the Clinical Years of Medical Education*. Presentation at Global Health Council Annual Meeting. Arlington, VA, 21 June.

Pfitzer A, K Garrison, and N McIntosh. 1999. *Maximizing Existing Resources for Reproductive Health: Using a Self-Assessment Tool for Determining Norplant Program Continuation/Expansion in Francophone Africa*. Presentation at Global Health Council Annual Meeting. Arlington, VA, 21 June.

Pfitzer A et al. 1999. Status of Norplant® Programs in West and Central Africa and Haiti: A Self-Assessment Tool. Presentation at American Public Health Association Annual Meeting. Chicago, IL, 7–10 November.

Sullivan R. 1999. *Designing Structured OJT Courses*. Presentation at American Society for Training and Development "TechKnowledge '99." Minneapolis, MN, 14–17 September.

Gaffikin L. 1998. *Visual Inspection of the Cervix: A Literature Review*. Presentation at International Conference on Reproductive Health. Mumbal, India, 16–19 March.

Gaffikin L. 1998. Assessing Access to Family Planning Services in Kenya: A Geographic Information Systems Approach. Presentation at International Health Geographics Conference. Baltimore, MD, 16–18 October.

Gaffikin L and SJG Brechin. 1998. *Monitoring and Evaluation: Experience with Health and Population Indicators in LAC Country Programs*. Presentation at LAC SOTA Conference. Miami, FL, 1 October.

Gaffikin L et al. 1998. Combining Sex Education and Provider Training in Adolescent Services: An Innovative Project in Bahia, Brazil. Presentation at American Public Health Association Annual Meeting. Washington, DC, 15–19 November.

Gaffikin L, J McGrath, and University of Zimbabwe/JHPIEGO Cervical Cancer Study Group. 1998. *Effect of Verification Bias on Test Quality Estimates: Case Study of Cervical Cancer Screening in Zimbabwe*. Presentation at American Public Health Association Annual Meeting. Washington, DC, 15–19 November.

Ghosh A. 1998. *Establishing Postabortion Care Services in Burkina Faso*. Poster presented at meeting of National Council for International Health. Arlington, VA, 25 June.

Ghosh A. 1998. *Management of STDs in Family Planning Settings in Ghana*. Poster presented at American Public Health Association Annual Meeting. Washington, DC, 15–19 November.

Ghosh A. 1998. *Management of STDs in Family Planning Settings in Ghana*. Poster presented at meeting of National Council for International Health. Arlington, VA, 25 June.

Ghosh A et al. 1998. *Introducing Improved Postabortion Care into Maternity Services in Burkina Faso.* Presentation at Global Meeting on "Postabortion Care: Advances and Challenges in Operations Research." New York, New York, 19–21 January.

Kamali K et al. 1998. *Desktop Videoconferencing as a Tool for Management of a Public Sector Clinical Reproductive Health Program in Indonesia*. Poster presented at American Public Health Association Annual Meeting. Washington, DC, 15–19 November.

Macias J. 1998. Documenting the Reduction of Medical Barriers in Reproductive Health Service Guidelines: Bolivia, Brazil, Guatemala and Peru. Presentation at MAQ Conference "From Guidelines to Action." Washington, DC, 12–13 May.

Sanghvi H. 1998. *Elements of Care of Mother and Baby at the Health Center and First Referral Level*. Presentation at Uganda Essential Maternal Health Care meeting. August.

Sanghvi H. 1998. Presentation at ECSA Regional Meeting on Prevention and Control of Cervical Cancer. Nairobi, Kenya, 29 March–1 April.

Sanghvi H and M Makumi. 1998. Reproductive Health and Family Planning Guidelines and Standards for Service Providers, the Kenya Story. Presentation at MAQ Conference "From Guidelines to Action." Washington, DC, 12–13 May.

Sullivan R and L Hudspeth. 1998. *Developing Interactive Multimedia for International Training*. Presentation at American Society for Training and Development Interactive Multimedia Summer Conference and Exposition. Arlington, VA, 26–28 August.

Sullivan R and L Hudspeth. 1998. *Developing Interactive Multimedia for International Training*. Presentation at American Society for Training and Development International Conference. San Francisco, CA, 31 May–4 June.

Brechin S et al. 1997. Expanding Training Options for Clinical Skills Training Through Structured On-the-Job Training: A Pilot Test in Zimbabwe and Kenya. Presentation at American Public Health Association Annual Meeting. Indianapolis, IN, November.

Brechin SJG and L Schaefer. 1997. *Reproductive Health/Family Planning Skills Assessment of Nurses Finishing Basic Training in 12 Institutions in Kenya.* Poster presented at National Nurse Practitioner Symposium. Baltimore, MD, 7 May.

Chipato T et al. 1997. Visual Inspection of the Cervix as a Primary Means of Cervical Cancer Screening: Results of a Pilot Study. Presentation at Fédération internationale de Gynécologie et Obstétrique (FIGO). Copenhagen, Denmark, 4–8 August.

Lacoste M. 1997. Structured On-the-Job Training: A Viable Approach for Clinical Skills Training. Presentation at Annual Conference of National Council for International Health. Washington, DC, 12–14 June.

Magarick R et al. 1997. *Institutionalizing Competency-Based Reproductive Health Training in a National Training System.* Presentation at American Public Health Association Annual Meeting. Indianapolis, IN, 11 November.

McIntosh N. 1997. *Keynote Address: Advances in Contraception.* Presentation at the Annual Meeting of the Kenyan Obstetrical and Gynaecological Society (KOGS). Nairobi, Kenya, 26 February.

Sullivan R. 1997. *Training Across International Borders*. Presentation at the International Conference and Exposition of the American Society for Training and Development. Washington, DC, 18–22 May.

Sullivan R. 1997. *Transferring and Assessing Performance Skills*. Presentation at the American Society for Training and Development Technical Training Conference and Exposition. St. Louis, MO, 24–26 September.

Sullivan R and M Lacoste. 1997. *Delivering Winning Presentations*. Presentation at the Annual Conference of the National Council for International Health. Washington, DC, 12–14 June.

Atkinson A. 1996. *USAID Women's Health Programs in the NIS*. Presentation at the Annual Meeting of the American International Health Alliance. Des Moines, IA, 7–9 October.

Johnson R. 1996. *Accelerating the Reduction of Maternal Mortality in Indonesia*. Presentation at Indonesian Association of Obstetricians and Gynecologists (POGI) and Ministry of Health (Depkes) Seminar on the Reduction of Maternal Mortality. Jakarta, Indonesia, 8–9 December.

McIntosh N. 1996. *Advances in Contraception*. Presentation at the Fourth Congress of the Society of African Gynecologists and Obstetricians (SAGO). Abidjan, Côte d'Ivoire, 9–13 December.

Norton T. 1996. Designing an Internet Service for Reproductive Health Information: ReproLine[®] Case Study. Presentation at the Annual Meeting of the American Public Health Association. New York, 17–21 November.

de Castro Buffington S. 1995. Fortalecimento do Apoio Político, Treinamento e Serviços em Saúde Reprodutiva do Adolescente no Estado da Bahia Integrando Saúde e Educação no Setor Público. Presentation at the Contraceptive Technology Update/Maximizing Access and Quality (CTU/MAQ) Workshop in Adolescent Reproductive Health. Salvador, Bahia, Brazil, 17 July.

de Castro Buffington S. 1995. Integrated Training Networks: A Framework for Establishing a National Training System to Prepare Health Care Personnel to Deliver Quality Family Planning and Selected Reproductive Health Services. Presentation at IXth International Congress of the Society for the Advancement of Contraception (SAC). Guatemala City, Guatemala, 10 March.

Gaffikin L et al. 1995. *Institutionalizing Fertility Management/Human Sexuality Training in Colombian Nursing Schools*. Presentation at IXth International Congress of the Society for the Advancement of Contraception (SAC). Guatemala City, Guatemala, 8–10 March.

de Castro Buffington S. 1994. *Transcultural Aspects of Fertility*. Presentation at the Transcultural Pathways in Women's Health Conference, Johns Hopkins University. Baltimore, MD, May.

Damiba A et al. 1994. *Innovative Approach to Introducing Norplant*. Presentation at the National Council for International Health Conference. June.

Debay M, A Damiba, and J Weinstein. 1994. *Improving the Quality of Family Planning Services in Rwanda*. Presentation at the National Council for International Health Conference. June.

Lacoste M et al. 1994. Evaluation of the Medical Internal Minilaparotomy Training Program of Kenya (Phase 3). Presentation at Annual Meeting of the American Public Health Association. Washington, DC, 31 October–4 November.

Magarick R. 1994. *Interactive Approaches to the Training of Reproductive Health Professionals*. Presentation at the Medical Council of India's National Conference on "Training Teachers Today for Tomorrow's Needs." New Delhi, India, September.

McIntosh N. 1994. *Practical Methods for High Level Disinfection of Surgical Gloves*. Presentation at Annual Meeting of the American Public Health Association. Washington, DC, 31 October–4 November.

Tawfik Y. 1994. *Maximizing Access to Family Planning Services*. Presentation at the "Population and Economic Growth: Perspectives from the Global South" conference. March.

Ajello C. 1993. Introduction of Norplant and Implementation of Large Scale Norplant Programs: Key Issues, Experiences and a Model for Introduction. Presentation at Turkey Norplant Conference. February.

Ajello C and W Bertrand. 1993. *Increasing the Availability of Family Planning Services Through Self-Paced Learning: Implications of Information Technology for Increasing Efficiency of Clinical Training*. Presentation at Indian Medical Association Headquarters. New Delhi, India, January.

de Castro Buffington. 1993. *The Client Pathway to Family Planning Services in the Postpartum and Postabortion Periods: Sociocultural Factors and Medical Barriers*. Presentation at the International Workshop on Postpartum and Postabortion Care Family Planning sponsored by the Pan American Health Organization and Family Health International, with support from JHPIEGO. Quito, Ecuador, July.

de Castro Buffington S. 1993. *Improving Quality of Care and Contraceptive Access by Reducing Medical Barriers to Family Planning Services*. Presentation at "Reducing Medical Barriers in Family Planning" Latin America Regional Workshop. Panama City, Panama, November.

Gaffikin L et al. 1993. A Study on Factors Defining Successful Institutionalization of a Family Planning Course in Nursing Schools in Colombia. Presentation at the American Public Health Association Annual Meeting. San Francisco, CA, October.

Gaffikin L et al. 1993. A Study on the Acceptability of IUDs among Family Planning Providers in Zimbabwe. Presentation at the American Public Health Association Annual Meeting. San Francisco, CA, October.

Magarick R. 1993. *Developing Participatory Training Skills in Reproductive Health Professionals*. Presentation at the American Public Health Association Annual Meeting. San Francisco, CA, October.

Magarick R. 1993. *Teaching for Clinical Performance: A Standardized Approach to Training*. Presentation at the Experts' Meeting on Developments in Contraceptive Technologies and Training Methodologies. The Philippines, January.

McIntosh N. 1993. *Survey of IUD Training in Thirty-Two Developing Countries*. Presentation at the American Public Health Association Annual Meeting. San Francisco, CA, October.

ARTICLES AND OTHER PUBLICATIONS

Sullivan R. 2003. Talking through: Discussion basics. Training and Development 57(3): 22–24.

Garrison K. 2002. Out of Ghana. *Training and Development* (April).

Sullivan RL. 2002. Lessons in smallness. *Training and Development* 56(3): 21–23.

Sullivan RL and JL Wircenski. 2002. *Technical Presentation Workbook*, second edition. AMSE Press: New York.

Curran K, N Maier, and T Norton. 2001. Realizing the possibilities: A technology-assisted learning center at Universidad Mayor de San Andrés, La Paz, Bolivia. *TechKnowLogia* March/April: 36–38.

Litch JA. 2001. Contraception and adolescents, in *Adolescent Health: Strength for National Development*. Anup Offset Press: Kathmandu, Nepal. (Abstract)

Stanback J et al. and the Kenya Guidelines Update Evaluation Study Group. 2001. *The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya*. Family Health International: Research Triangle Park, North Carolina. (Final Report)

Sullivan RL. 2001. On-the-job training, in *Performance Maps: 36 Strategies for Solving Your Organization's Problems*. Sanders ES and S Thiagarajan. American Society for Training and Development: Arlington, VA.

Sullivan RL and JL Wircenski. 2001. *Effective Classroom Training Techniques*. American Society for Training and Development: Alexandria, VA. (Info-Line)

Bajracharya B. 2000. Post abortion care (Pac) and nurses' role. *Journal of Nursing Education of Nepal* II(I): 71–74.

Ghana Ministry of Health and JHPIEGO. 2000. Case Study: Applying a Performance Improvement Approach to Infection Prevention.

Litch JA et al. 2000. Hormonal contraceptive use in a rural district of Nepal. *Journal of the Nepal Medical Association* 39: 199–202.

Díaz M et al. 1999. Expanding contraceptive choice: Findings from Brazil. *Studies in Family Planning* 30 (1): 1–16.

King-Taylor L and R Sullivan. 1999. Coaching the new technical trainer. *Technical Training* 10(5): 10–13.

University of Zimbabwe/JHPIEGO Cervical Cancer Project. 1999. Visual inspection for cervical cancer screening: Test qualities in a primary care setting. *The Lancet* 353(9156): 869–973.

Bimo et al. 1998. Desktop videoconferencing as a tool for management of a public sector clinical reproductive health program in Indonesia. Abstract from 10th International Congress of the Society for the Advancement of Contraception. Manila, Philippines, 5–9 November. *Advances in Contraception* 14(3).

Chirenje ZM et al. 1998. Visual inspection of the cervix for primary screening for cervical cancer. Abstract from 10th International Congress of the Society for the Advancement of Contraception. Manila, Philippines, 5–9 November. *Advances in Contraception* 14(3).

Gaffikin L et al. 1998. Provider attitudes toward IUD provision in Zimbabwe: Perception of HIV risk and training implications. *Advances in Contraception* 14(1): 27–39.

JHPIEGO Cervical Cancer Project. 1998. Promise of Prevention. *World Ecology Report* Vol. X, No. 3. World Information Transfer: New York.

Lu R. 1998. Using the Internet to improve reproductive health training. Abstract from 10th International Congress of the Society for the Advancement of Contraception. Manila, Philippines, 5–9 November. *Advances in Contraception* 14(3).

Özek B et al. 1998. On-the-job training through follow-up visits to improve the quality of family planning services. *The European Journal of Contraception and Reproductive Health Care* 3: 201–206.

Smith JM, AR Conwit, and PD Blumenthal. 1998. Ulnar nerve injury associated with removal of Norplant implants. *Contraception* 57(2): 99–101.

Sullivan RL. 1998. *The Transfer of Skills Training*. American Society for Training and Development: Alexandria, VA.

Sullivan RL, S Brechin, and M Lacoste. 1998. Structured on-the-job training: Innovations in international health training, in *Linking HRD Programs with Organizational Strategy*. Rothwell WJ (ed). American Society for Training and Development: Alexandria, VA.

Wircenski JL and RL Sullivan. 1998. *Make Every Presentation a Winner*. American Society for Training and Development: Alexandria, VA.

Blumenthal PD et al. 1997. Training for Norplant implant removal: Assessment of learning curves and competency. *Obstetrics and Gynecology* 89(2): 174–178.

Hudspeth L and RL Sullivan. 1997. Teaming to design interactive media. *Technical Training* 8(6): 22–28.

Limpaphayom K et al. 1997. The effectiveness of model-based training in accelerating IUD skill acquisition. *British Journal of Family Planning* 23(2): 58–61.

Sullivan RL and K Ruyle. 1997. Case studies: An essential training tool. *Technical and Skills Training* 8(1): 27–29.

Valadez JJ et al. 1997. Assessing family planning service-delivery skills in Kenya. *Studies in Family Planning* 28(2): 143–150.

Pathak LR et al. 1996. Toward the standardization of family planning services in Nepal. *Journal of the Nepal Medical Association* 34 (118–119): 185–188.

Sullivan RL. 1996. Competency-based technical training on an international scale, in *The ASTD Technical and Skills Training Handbook*, Supplement 1. Kelly L (ed), pp 91–110. McGraw Hill: New York.

Sullivan RL. 1996. Transferring performance skills: A clinician's case study. *Technical Skills Training* 7(1): 14–16.

Sullivan RL and JL Wircenski. 1996. Giving a technical presentation. *Mechanical Engineering* 118(4): 38.

Sullivan RL and JL Wircenski. 1996. *Technical Presentation Workbook*. ASME Press: New York.

Vijaya KC, L Tietjen, and N McIntosh. 1996. History of infection prevention and environmental management in Nepal. *Journal of the Nepal Medical Association* 34(118–119): 119–123.

Blumenthal PD. 1995. Laparoscopic sterilization in the supine position using the Ramathibodi uterine manipulator. *Fertility and Sterility* 64(1): 204–207.

Blumenthal PD et al. 1995. Usefulness of a clinical scoring system to anticipate difficulty of Norplant removal. *Advances in Contraception* 11(4): 345–252.

Bromham et al. 1995. Materials, methods and results of the Norplant training program. *Advances in Contraception* 11: 255–262.

deCastro Buffington S. 1995. A framework for establishing integrated reproductive health training. *Advances in Contraception* 11(4): 317–324.

Gaffikin L et al. 1995. Institutionalizing fertility management/human sexuality training in Colombian nursing schools. *Advances in Contraception* 11(4): 325–334.

Schultz F and R Sullivan. 1995. A model for designing training. *Technical Skills Training* 6(1): 22–26.

Sullivan RL. 1995. Training across international borders. *Training and Development* 49(6): 55–57.

GUIDELINES DEVELOPED WITH JHPIEGO/TRH TECHNICAL ASSISTANCE

Bolivia: Reference Manual for Reproductive Health, first edition. 1994.

Bolivia: Reference Manual for Sexual and Reproductive Health, second edition. 1996.

Bolivia: Policy and Strategies for the Development of Human Resources in Health. 2000.

Botswana: Family Planning General Policy Guidelines and Service Standards.

Brazil (Bahia): Manual for Reproductive Health Services Provision, 1998.

Brazil (Ceará): Guide for Reproductive Health Services Provision. 1998.

Cameroon: National Policy Document in Reproductive Health; Service Policy Document in Reproductive Health.

Côte d'Ivoire: Policy and Standards for Reproductive Health and Family Planning Services.

Ecuador: Norms and Procedures in Reproductive Health Care. 1999.

Ghana: National Reproductive Health Service Protocols and Policy Summary. 1997.

Guatemala Service Delivery Guidelines: Volumes I (Family Planning), Volume II (Prevention, Diagnosis and Treatment of Sexually Transmitted Infections), and Volume III (Infection Prevention). 1998 and 2000.

Guinea: Guide for Regional Trainers of Norms and Procedures for Reproductive Health Services. 1998.

Guinea: Norms and Procedures for Reproductive Health Services. 2000.

Guinea: Postabortion Care Policies, Norms and Procedures. 2001.

Haiti: Family Planning and Maternal Health Services Norm Manual. 1999.

Uttar Pradesh, India: Family Planning Policy and Service Delivery Standards for Uttar Pradesh. 1997.

Indonesia: National Resource Document for Family Planning; National Reference Document for Maternal and Neonatal Health.1996.

Jamaica: Family Planning Service Delivery Guidelines. 1999.

Kazakhstan: Reproductive Health Guidelines for Kazakhstan. 1999.

Kenya: Reproductive Health/Family Planning Policy Guidelines and Standards for Service Providers, revised edition.1997.

Kyrgyzstan: National Reproductive Health Service Delivery Guidelines. 1995.

Malawi National Reproductive Health Service Delivery Guidelines. 2001.

Nepal: National Medical Standard for Reproductive Health Services: Vol. I, Contraceptive Services; Vol. II, Other Reproductive Health Services. 2001.

Nepal: Management of Emergencies in Family Planning Services. 1999.

Niger: Norms and Procedures for Reproductive Health, Vol. I and II; Policy and Norms for Reproductive Health. 1993.

Peru: National Guidelines for Reproductive Health Care. 1977.

Philippines: Guidelines: Minilaparatomy with Local Anesthesia. 1993.

Russia: Service Delivery Guidelines for Family Planning Service Programs. 1998.

Senegal: Service Standards for Family Planning in Senegal. 1996.

Turkey: National Family Planning Service Guidelines. Volume I: Family Planning and Reproductive Health/Volume II: Contraceptive Methods. 1994, 2000.

Ukraine: Guidelines for Family Planning Service Programs. 1998.

Uzbekistan: Women's Reproductive Health Services in the Republic of Uzbekistan: Service Guidelines. 1996.

Zimbabwe: National Family Planning Programme: Service Delivery Policies and Standards. 1994; National Family Planning Council Guidelines. 2001.

PRESERVICE/INSERVICE CURRICULAR MATERIALS

Ghana: Comprehensive Family Planning Course: Guide For Participants. 1998.

Ghana: Reproductive Health Classroom and Clinical Activity Guide for Training Midwives: A Supplement to the Midwifery Curriculum. 1999.

Ghana: Reproductive Health Curriculum for Interns—Participant's Handbook (Part II): Safe Motherhood. 1998.

Ghana Reproductive Health Curriculum for Interns: Trainer's Notebook. 1998.

Morocco: Family Planning and Safe Motherhood Training Module for Sixth Year Medical Students. 1999.

Niger: Family Planning Module for Trainers. 1998.

Senegal: Clinical Training Curriculum for Family Planning in Senegal. 1998.

Uganda Ob/Gynae Internship Training Package. 1998.

Uganda Preservice Reproductive Health: Classroom and Clinical Activity Guide for Midwives. 2000.

Uganda Preservice RH/FP Education: Content Reference Manual for Nurses, Midwives and Clinical Officers. 2000.

Uganda Preservice RH/FP Training: Curricular Component for Comprehensive Nurses. 1998. Uganda Preservice RH/FP Training: Curricular Component for Nurses, Midwives and Clinical Officers. 1998.

Uganda Preservice RH/FP Training: Curricular Component for Nurses, Midwives, Clinical Officers and Comprehensive Nurses: Student Extract. 1998.

Guinea: Training in the Integration of FP/STD/AIDS Services in Health Centers: Participant's Handbook. 1998.

APPENDIX B TRH CONTRIBUTIONS TO THE FIELD OF TRAINING AND LEARNING

CONTRIBUTION	KEY DOCUMENTATION		
National Training Systems			
With adequate investments, competency-based training methods can be institutionalized and sustained in national training programs in preservice medical, nursing, and midwifery education programs, thereby "graduating" them from further TRH technical assistance.	Evidence from country training systems in Kenya, Philippines, Malawi, Central Asian Republics, Turkey, Peru		
National training systems need to have an integrated approach across the life cycle of learning (preservice education to inservice training to continuing education) to ensure an appropriate workforce that can provide quality services.	Evidence from country training systems in Malawi, Kenya, Central Asian Republics, Nepal, Turkey		
Approach to Training			
To ensure client safety, standardization of clinical skills and a structured training approach are required. This is especially critical when training is being implemented globally. This need has required that JHPIEGO develop and use a competency-based training approach. Competency-based training results in competent providers across a variety of cadres and across a variety of content areas including HIV/AIDS and community-level work. The opportunity to practice in the classroom and on anatomic models increases each provider's competence while at the same time decreasing training time and costs. JHPIEGO has developed a competency-based approach to clinical training that is:	JHPIEGO's approach to training is based on extensive review of the training literature. The primary references are found in the: Clinical Training Skills manual Advanced Training Skills manual Instructional Design manual Competency-based training strategy paper In addition, in a research study JHPIEGO/TRH conducted in the mid-1990s focusing on the effect of using anatomic models, it was shown that competency-based training using anatomic models was more effective than traditional training.		
 Based on mastery learning Humanistic, as competency is first demonstrated during simulations (i.e., with anatomic models, role plays) Participatory and interactive Based on learning materials for the participants and trainers that are developed using principles of instructional design Based on adult learning principles Based on measurable learning objectives reflecting job expectations of the participants Applied in both classroom and clinical settings 	The Clinical Training Skills manual was adapted by the Quality Assurance Project to train QA trainers. The same manual was also adapted for training leadership trainers by the Bill and Melinda Gates Institute at Johns Hopkins University. All three reference manuals are being used extensively in a collaborative project with WHO to develop a preservice education teaching manual.		

CONTRIBUTION	KEY DOCUMENTATION
Training of Trainers	
Training interventions should be implemented by qualified trainers.	Literature review as documented in JHPIEGO's Clinical and Advanced Training Skills and Instructional Design manuals.
A structured trainer development process recognizes that there is a logical progression to the development of training skills, that time and practice are required for mastery of each set of skills before moving to the next, and that the skills needed at each level are unique and build on earlier skills.	 JHPIEGO's trainer development pathway Clinical trainer—trains service providers Advanced trainer—trains new trainers Master trainer—designs and develops courses and learning materials Each level incorporates coursework and practice.
With only minor adaptations, this process can successfully develop inservice trainers and preservice faculty and preceptors, for all clinical areas.	 Reports from the JTIMS database demonstrate the use of the pathway to develop all types and levels of trainers for a wide range of clinical areas, on a global level. See preservice reports listed below.
Once developed, qualified trainers need periodic/ ongoing updating and refreshing of both training and clinical knowledge and skills.	 Brechin S et al. 2001. Retention of Training Skills in Family Planning Trainers: Results of a 1997 Trainer Follow-Up Assessment in Zimbabwe. JHPIEGO Technical Report JHP-09. Blake SM and SJG Brechin. 1999. Training Evaluation Handbook for JHPIEGO Program Staff and Master Trainers. September. (Draft)
Technology-Assisted Learning	
Efforts to improve provider and trainer performance can be conducted using technology-assisted learning.	JHPIEGO's contributions to technology-assisted learning include: ModCAL® for IUD ModCAL® for Clinical Training Skills ReproLine® website ReproLearn® Tutorials JHPIEGO TrainerNews® electronic newsletter REPRONET-L e-mail discussion group Technology assisted learning centers (TALCs)
Computer-assisted learning is an effective alternative learning approach in low-resource settings.	 Fernandez RL et al. 1999. Pilot Testing ModCal for Inservice and Preservice Family Planning Training in the Philippines. Brechin SJG et al. 1997. Implementing a New Training Approach: Pilot Test of ModCal™ in Zimbabwe. JHPIEGO Technical Report FCA-28.
An electronic newsletter supports the performance of RH trainers.	JHPIEGO TrainerNews survey results, June 2001.
Electronic services provide access to up-to-date RH information for RH service providers, faculty, and trainers in low-resource settings.	Information Update Technology fact sheet (draft) Anecdotal information. 2002.

CONTRIBUTION	KEY DOCUMENTATION
Access to computers and the Internet improves the performance and academic experience for RH faculty and students.	 Schenck-Yglesias C et al. 2002. Increasing Access to Reproductive Health Information in Low-Resource Settings: Evaluation of a Technology-Assisted Learning Center in La Paz, Bolivia. JHPIEGO Technical Report JHP-16. Curran K et al. 2001. Realizing the possibilities: A technology-assisted learning center at Universidad Major de San Andres, La Paz, Bolivia. TechKnowLogia. Knowledge Enterprise, Inc. (March/April).
The ReproLine website provides widespread access to up-to-date RH information and training tools.	ReproLine usage statistics. Sept 2001–Sept 2002.
Individualized Learning	
Based on our experiences in the field, a variety of learning approaches can work in low-resource settings.	JHPIEGO's approach to individualized learning is based on an extensive review of the literature and is described in the following documents:
Alternative training approaches like structured on-the-job training (OJT) and computer-assisted learning programs like ModCAL® (Modified Computer-Assisted Learning) are as effective in transferring skills and knowledge as group-based training approaches, and can be cost-effective.	 Brechin SJ et al. 2000. Improving Performance of Healthcare Providers through Structured On-the-Job Training: A Pilot Test in Zimbabwe and Kenya. JHPIEGO Technical Report JHP-04. Sullivan R and TS Smith. 1996. On-The-Job Training for Family Planning Service Providers. JHPIEGO Strategy Paper #3. Sullivan RL, S Brechin, and M Lacoste. 1998. Structured on-the-job training: Innovations in international health training. In WJ Rothwell (ed). Linking HRD Programs with Organizational Strategy (pp. 155–179). American Society for Training and Development. Individualized learning packages include:
	 Postabortion Care Individual Learning Package IUD Structured On-the-Job Training (OJT) package No-Scalpel Vasectomy Individual Learning Package

CONTRIBUTION	KEY DOCUMENTATION		
Transfer of Learning			
Maintaining new skills depends on a variety of conditions including supportive supervision, an enabling work environment with sufficient supplies and resources, and opportunities to use new skills after training. JHPIEGO supports training interventions that include transfer of learning strategies.	 JHPIEGO's approach to transfer of learning is based on an extensive review of the literature and is described in the PRIME II and JHPIEGO publication: Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers. Rawlins B et al. 2001. Focusing on What Works: A Study of High-Performing Sites in Kenya. Brothers J et al. 2000. The Effectiveness of Training for Minister transport of the Minister o		
Applying newly acquired knowledge and skills on the job after training requires the support of the worker's supervisor.	Training for Minilaparotomy Services in Nepal. JHPIEGO has developed and is currently field-testing a supervision manual based on the performance improvement process. This manual is used to improve the performance of healthcare supervisors. The manual is entitled: Supervising Healthcare Services: Improving the Performance of People.		
For service delivery guidelines to be more effectively disseminated requires an active orientation of a few staff in order to realize an "echo" effect in their own clinics.	 Stanback J et al. and the Kenya Guidelines Update Evaluation Study Group. 2001. The Effectiveness of National Dissemination of Updated Reproductive Health/Family Planning Guidelines in Kenya. Family Health International. Lessons learned from JHPIEGO's guidelines study in Kenya now informs our current strategies through the MAQ initiatives. 		
Preservice Education	or aregine arreagil and the equipment		
Training interventions to improve provider performance should be linked to the preservice education system; strengthening preservice education improves graduates' performance on the job.	An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana. 2002.		
Strengthening preservice education should be based on a clear process that involves stakeholders.	Schaefer L (ed). 2002. Preservice Implementation Guide: A Process for Strengthening Preservice Education, which describes a process based on JHPIEGO's experience in 21 countries.		
Strengthening preservice education requires improving design, delivery, and evaluation of classroom and clinical teaching.	 JHPIEGO's Clinical and Advanced Training Skills and Instructional Design Training Packages. Effective Teaching: A Guide for Educating Healthcare Providers materials being developed by WHO and JHPIEGO. 		
Traditionally, the linkages between classroom and clinical teaching are weak; improving the linkages will promote students' skill development and readiness to practice upon graduation.	■ Vollmer N, TF Dean, and J Valadez. 1995. Evaluation of Preservice and Nursing Reproductive Health Training in the Philippines. JHPIEGO Technical Report FCA-23.		

CONTRIBUTION

Preservice curricula are generally overloaded with content; rational use of teaching time requires that the focus be on developing a basic set of skills that will be used by most or all graduates, leaving more advanced or highly technical skills to inservice training.

During the preservice strengthening process, building on the synergies between the inservice and preservice systems (trainers, clinical practice sites) will increase the effectiveness of both systems.

Providing support and followup to teaching institutions as they implement strengthened curricula and teaching is critical to their success.

The standardization of teaching among institutions and the implementation of competency-based training are facilitated by the development and use of a learning package as part of the preservice strengthening process. Development of such a package should be based on the numerous learning packages for inservice and preservice that already exist.

Strengthening one area of a curriculum can often lead to change in other areas as well; focusing on the **process** used in strengthening is therefore important for institutions so that they can develop institutional capacity to continue the strengthening process on their own, if necessary.

Strengthening preservice curricula and teaching is sustainable, with long-lasting results, in terms of:

- Implementation of strengthened curricula
- Use of competency-based methods and learning packages
- Utilization of well-prepared faculty and preceptors
- Opportunities for student practice and skill development, and student satisfaction with their experience

Although preservice strengthening requires sustained effort over 3–5 years to implement all aspects of the process, there are immediate effects even before teaching begins:

- Revised curricula and learning package based on national standards
- Strengthened teaching skills of classroom faculty and preceptors
- Clinical practices sites that are providing highquality services

KEY DOCUMENTATION

Technical Reports

- Pons M, B Rawlins, and S Brechin. 2002 Institutionalization of Reproductive Health Preservice Education in the Philippines: An Evaluation of Programmatic Efforts, 1987– 1998. JHPIEGO Technical Report JHP-16.
- Brechin S et al. 1999. Strengthening Family Planning and Safe Motherhood Clinical Training in Moroccan Medical Schools: Evaluation of Student Performance. JHPIEGO Technical Report JHP-01.
- Özek B et al. 2002. Establishing Integrated Family Planning/Reproductive Health Preservice and Inservice National Clinical Training Systems in Turkey. JHPIEGO Technical Report JHP-18.
- Garrison K et al. 2000. The Effectiveness of Strengthening Family Planning Preservice Education for Nurses and Midwives in Uganda: Five Years of Achievements.
- Kinzie B and A Ghosh. 2000. Needs
 Assessment of Safe Motherhood and FP/RH
 Training in the Preservice Nursing and
 Midwifery Training in Kumasi and Koforidua.
- Brechin S et al. 2001. Strengthening Preservice Midwifery Education in Ghana: Achievements and Phase 2 Expansion Plans. JHPIEGO Technical Report JHP-13.
- An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana. 2002.
- Smith T and SJG Brechin. 2000. Developing a National Family Planning/Reproductive Health Clinical Training System in Kenya. JHPIEGO Technical Report JHP-02.
- Brechin S, T Smith, and L Schaefer. 1997.
 Family Planning/Reproductive Health Skills
 Assessment of Nurses Finishing Basic Training in 12 Institutions in Kenya. JHPIEGO Technical Report FCA-33.
- Garrison K et al. 1999. Evaluation of Nursing and Midwifery Student Family Planning/ Reproductive Health Knowledge and Skills at the Ecole Secondaire de la Santé in Mali.
- Schaefer L et al. 2000. Midterm Review of the Institute of Medicine/JHPIEGO Proficiency Certificate Level Nursing Program in Nepal.

CONTRIBUTION	KEY DOCUMENTATION
A Training Information System (TIS) is an important component of a national training system to be able to:	Gaffikin L and SJG Brechin. 1999. Introduction to Training Information Systems. JHPIEGO. (Draft)
■ Project training needs (ProTrain [™])	
 Track and monitor training efforts (trainer, provider) using a Training Information Management System (TIMS[®]) 	
Electronic TIS components based on formal paper-based systems allow coordination with and linkages to other parts of a Health MIS.	Nepal, Malawi, and Kenya
A Training Information Management System (TIMS) is essential to assess training efforts such as appropriate candidates meeting selection criteria, how a national training strategy fills projected training needs, etc.	Kenya, Malawi, Indonesia, and Nepal

APPENDIX C TRH BEST PRACTICES, INNOVATIONS, AND PRODUCTS

TRH BEST PRACTICES

- JHPIEGO/TRH's competency-based approach to preservice education and training in FP/RH in low-resource settings (mastery learning)
- Structured trainer development process/pathway
- ModCAL (Modified Computer-Assisted Learning) for IUD Services and Clinical Training Skills
- On-the-Job Training (OJT) packages
- Transfer of Learning approach
- OJT/individualized learning packages (multiple content areas)
- TRH instructional design process
- PROQUALI quality recognition model

TRH INNOVATIONS AND APPROACHES

Application of the performance and quality improvement (PQI) process. JHPIEGO helped to establish and has been a key member of the Performance Improvement Consultative Group (PICG) as it seeks a joint understanding of and a common approach to performance improvement. In addition, we have sponsored a performance improvement e-mail discussion group for the exchange of information and ideas. In the field, we successfully advocated for the adoption of the PQI approach in Burkina Faso, Ghana, Guatemala, Honduras, Indonesia, Jamaica, Malawi, and Senegal, through discussions with JHPIEGO field staff and USAID missions, and through 1-day orientations. In Kenya, a PQI workshop was completed in conjunction with a regional IP workshop, formalizing PQI as the process for implementing new IP practices at service delivery sites. Lastly, a website for the PICG was designed and is currently managed by JHPIEGO.

Alternative training approaches like structured on-the-job training (OJT) and computer-assisted learning programs like ModCAL® (Modified Computer-Assisted Learning). These approaches are as effective in transferring skills and knowledge as group-based training approaches and can be cost-effective. Efforts to improve provider and trainer knowledge and performance can be conducted using technology-assisted learning resources. (e.g., ReproLearn Tutorials, e-mail-based courses).

CD-ROM tutorial and resource library on Use of Geographic Information Systems (GIS) for FP/RH Program Monitoring. In many countries, as Cooperating Agencies come and go, different districts are targeted with various FP/RH program inputs, amid pre-existing, underlying inequalities in health status among districts within a given country. Use of geographic information systems (GIS) assists program managers and ministries of health in assessing inequity and opportunities for improvement across geographic areas, to meet national population health goals. Although ministries of health in Malawi and Jamaica, among other developing countries, are already using GIS in some departments, training on mapping FP/RH and human capacity development indicators is needed to build and focus capacity in these specific areas. In response to the growing need for training in this technology, JHPIEGO developed the "Use of Geographic Information Systems (GIS) for FP/RH Program Monitoring"

workshop under TRH. This workshop aims to transfer capacity to Cooperating Agency field programs and ministries of health for mapping FP/RH service delivery improvement, MEASURE/DHS+, and human capacity development indicators. In the workshop materials, there is a focus on geographic classification of unmet RH needs. GIS monitoring examples covered include: Indonesia district-level voluntary female and male sterilization service delivery data; Malawi central and district hospital PAC service delivery data; Malawi human capacity development data; and global FP/RH training data, all produced over the life of the TRH award. In February 2004, JHPIEGO/TRH field-tested the workshop materials at a 1-day workshop in Lilongwe, Malawi. Twelve representatives of the MOH and Cooperating Agencies working in FP/RH programmatic and health information systems roles attended the workshop. Feedback received from participants on course evaluation forms was positive, with most asking for a longer course to be able to learn even more about this useful technology. The four tutorial models are packaged on a CD-ROM along with FP/RH and human capacity development case studies that show how using GIS for the visual display of indicator data will aid in targeting decisions and tracking programmatic outcomes.

Integration of gender into reproductive health programs. The USAID Interagency Gender Working Group (IGWG) has produced a gender integration manual for use by RH professionals in developing, implementing, and evaluating programs. TRH has introduced this manual in two countries and will expand the training to new regions in Asia and Anglophone Africa. This work will build upon the successful collaboration of the IGWG members and lead to global expansion of the manual, building capacity across regions. The information collected through the training evaluation and experience will be synthesized. Based on the results, a presentation will be developed that will summarize the achievements of the special initiative and make recommendations regarding how country programs can use the manual to maximize results.

TRH PRODUCTS

- ReproLine website
- ReproLearn Tutorials
- HIV/AIDS E-mail course
- Clinical Training Skills, Advanced Training Skills, and Instructional Design reference manuals (Training of Trainer materials)
- Inservice group-based training manuals for participants and trainers (multiple content areas)
- Preservice education curricular modules and learning guides for faculty, preceptors, and students (multiple content areas)
- TIMS[©] (Training Information Monitoring System)

APPENDIX D SEMINAL RESULTS FROM PRESERVICE EVALUATIONS UNDER TRH

COUNTRY/YEAR	RESULTS
The Philippines (March 2001)	FP/RH preservice investments made in 27 preservice nursing and midwifery schools had been institutionalized and sustained 3 years after TRH program close-out:
	 Availability of trained faculty, continued implementation of FP/RH curricular components, availability of functioning clinical training sites
	 Licensure examination passing rates of graduates from intervention schools consistently higher than the national average
	 Designation of all school clinics as service delivery points for the government's FP program
Ghana (April–May 2002)	An evaluation of job performance of midwives 1 year after graduation showed that midwives trained at intervention schools had significantly better total knowledge and total skills than the midwives in the comparison group.
Turkey (2002)	Integrated FP/RH preservice midwifery education has been established and is functioning at 19 university-based schools:
	 Midwifery training costs reduced by 20% as the preservice program allowed students more FP/RH education from the beginning of their midwifery careers
	 Economies of scale from using the same clinical training resources (sites and trainers) for both preservice and inservice training programs
	 A national-level system certifying midwifery students to provide IUD insertion and removal and general FP counseling in the public and private sector
Uganda (1999)	Evaluation of the preservice nursing and midwifery project in nine schools (1995–1999):
	■ FP/RH service delivery had improved at clinical training sites: Number of clients increased over the period 1995 to 1999 by 160%
	■ Nine clinics offering improved RH services (counseling, IP, FP, STI services)
	■ Tracking the employment status of 1998–1999 nursing/midwifery graduates:
	 Average of 295 graduates each year with strengthened RH skills More than 90% of graduates working in the health field (393 graduates from nine schools)
	 72% of graduates providing a range of health services including FP/RH services
Morocco (1998)	In answer to the question: Are 6th-year medical students ready to practice during their internship (7 th) year?, the evaluation documented that:
	 The revised curriculum for FP/SM rotation had been implemented (five ob/gyn rotation groups over 1 academic year).
	■ There was no significant difference in skill retention between two different rotation groups, despite a 6-month time difference in the training intervention.

APPENDIX E TRH COUNTRIES WITH SERVICE DELIVERY GUIDELINES, PRESERVICE EDUCATION PROGRAMS, AND/OR INSERVICE TRAINING PROGRAMS

COUNTRY	SERVICE DELIVERY GUIDELINES	PRESERVICE	INSERVICE
Benin		X	
Bolivia	X	X	Х
Brazil	X	X	Х
Burkina Faso	X		Х
Cameroon	X		
Cote d'Ivoire			Х
Ecuador	X	X	Х
Egypt		X	
Georgia		Х	Х
Ghana	X	X	Х
Guatemala	X	X	Х
Guinea	X	Х	Х
Haiti	X		Х
India	X	X	Х
Indonesia	X	Х	Х
Jamaica	X		Х
Kazakhstan	X	Х	Х
Kenya	X	X	X
Kyrgyzstan	X	X	Х
Malawi	X	X	X
Mali	X		Х
Moldova			Х
Morocco		X	X
Nepal	X	X	Х
Niger	X	Х	
Peru	X	X	X
Philippines	X	X	Х
Russia	X		Х
Senegal	X		Х
South Africa			Х
St. Kitts & Nevis			Х
Tajikistan			X
Trinidad & Tobago			Х
Tunisia			Х
Turkey	X	X	Х
Turkmenistan		X	Х
Uganda	X	X	Х
Ukraine	X	X	Х
United States		X	
Uzbekistan	X	X	Х
Zambia	X	X	X
Zimbabwe	X	X	X
TOTAL	29	28	37

APPENDIX F KEY EVALUATIONS OF PROVIDER PERFORMANCE

COUNTRY	REPORT TITLE	RESULT SUMMARY
Malawi	Evaluation of Postabortion Care Service Delivery in Malawi	A process evaluation showed that more than 80% of PAC clients were counseled about the procedure they underwent; patients were generally pleased with the pain management they received; more than 90% of providers correctly performed each step of the preparation and MVA procedure; and 74% of MVA clients and 40 % of D&C clients received FP counseling in the quarter preceding the evaluation.
Ghana	An Evaluation of Job Performance of Midwives One Year After Graduation in Ghana	A training evaluation of midwives 1 year after graduation showed that midwives trained at intervention schools had significantly better total knowledge and total skills than the midwives in the comparison group.
Nepal	An Assessment of the Quality of Postabortion Care Services in Nepal: Training and Service Delivery Perspectives, 2001	Demonstrated that PAC services are in place and functioning at 9 hospitals, providing increased access to PAC services for women living in and outside of the Kathmandu valley.
Nepal	A Self-Paced Learning Package for Training in the No-Scalpel Vasectomy Technique: The Experiences of Trainers and Participants in Nepal, 2002	Determined efficiencies in training using the self-paced learning package. Sixty percent of the participants competent in all 16 critical steps on the NSV checklist and post-operative IP practices were improved.
Moldova	Effectiveness of Contraceptive Technology Update Training: Improved Family Planning/ Reproductive Health Knowledge and Stated Practices of Service Providers in Moldova	Positive impact of the update training evidenced by increased knowledge levels and good knowledge retention levels; FP service practices also changed as a result.
Jamaica	Developing a Sustainable Communication Strategy to Increase Compliance with the National Family Planning Guidelines: Baseline Assessment Results	Demonstrated use of standardized clients and OSCE methodology in inservice setting to assess provider performance.
Kenya	The Effectiveness of National Dissemination of Updated Reproductive Health / Family Planning Guidelines in Kenya	Documented that healthcare providers are more likely to change their performance and have an impact on staff at their service delivery site when they are prepared with a short update and materials to orient their colleagues to new information, even only a knowledge update. Additionally, when support supervision is provided to sites, positive changes in retained knowledge and stated practices were even more dramatic.

APPENDIX G TRH COUNTRIES WITH TRAINER DEVELOPMENT PROGRAMS

REGION	COUNTRY	TRAINERS
Africa	Algeria	1
	Benin	17
	Burkina Faso	34
	Cameroon	30
	Côte d'Ivoire	58
	Djibouti	1
	Egypt	43
	Ghana	306
	Guinea	33
	Kenya	476
	Madagascar	1
	Malawi	126
	Mali	28
	Mauritania	1
	Morocco	72
	Niger	12
	Nigeria	1
	Rwanda	1
	Senegal	53
	South Africa	43
	Sudan	2
	Tanzania	3
	Togo	5
	Tunisia	6
	Uganda	134
	Zambia	16
	Zimbabwe	36
TOTAL for Africa	Zimbabwc	1,539
TOTAL IOI AITICA		1,000
Asia, Central; Eastern Europe; Near East	Afghanistan	27
	Belarus	1
	Gaza Strip	2
	Georgia	15
	Iraq	2
	Jordan	2
	Kazakhstan	39
	Kyrgyzstan	27
	Lebanon	
	Moldova	31

REGION	COUNTRY	TRAINERS
	Russia	78
	Syria	2
	Tajikistan	39
	Turkey	146
	Turkmenistan	29
	Ukraine	97
	Uzbekistan	41
	Yemen	2
TOTAL for Central Asia, Eastern Euro	pe; Near East	582
Asia: South and Southeast	Cambodia	2
	Fiji	1
	India	81
	Indonesia	275
	Nepal	256
	Papua New Guinea	6
	Philippines	95
	Thailand	14
TOTAL for South and Southeast Asia TOTAL for Asia, Eastern Europe, and Southeast Asia		730 1,312
TOTAL for Asia, Eastern Europe, and		
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and	1,312
TOTAL for Asia, Eastern Europe, and		1,312 55
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil	1,312 55 159
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia	1,312 55
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile	1,312 55 159 2
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia	1,312 55 159 2 1
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador	1,312 55 159 2 1 60
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala	1,312 55 159 2 1 60 88
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti	1,312 55 159 2 1 60 88 35
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras	1,312 55 159 2 1 60 88 35 25
TOTAL for Asia, Eastern Europe, and Southeast Asia	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica	1,312 55 159 2 1 60 88 35 25 48
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique	1,312 55 159 2 1 60 88 35 25 48 1
TOTAL for Asia, Eastern Europe, and Southeast Asia	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay	1,312 55 159 2 1 60 88 35 25 48 1
TOTAL for Asia, Eastern Europe, and Southeast Asia	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195
TOTAL for Asia, Eastern Europe, and Southeast Asia	Near East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru Puerto Rico	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195
TOTAL for Asia, Eastern Europe, and Southeast Asia	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru Puerto Rico St. Vincent & The Grenadines	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195 2
TOTAL for Asia, Eastern Europe, and Southeast Asia	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru Puerto Rico St. Vincent & The Grenadines Trinidad & Tobago Uruguay	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195 2 1 8
TOTAL for Asia, Eastern Europe, and Southeast Asia Latin America and Caribbean	Rear East; Central; South and Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru Puerto Rico St. Vincent & The Grenadines Trinidad & Tobago Uruguay	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195 2 1 8
TOTAL for Asia, Eastern Europe, and Southeast Asia Latin America and Caribbean TOTAL for Latin America and Caribbe	Bolivia Brazil Chile Colombia Ecuador Guatemala Haiti Honduras Jamaica Martinique Paraguay Peru Puerto Rico St. Vincent & The Grenadines Trinidad & Tobago Uruguay	1,312 55 159 2 1 60 88 35 25 48 1 1 1 195 2 1 8 2 683

APPENDIX H¹⁷ SELECTED TRH PRODUCTS AND TOOLS ADOPTED BY BILATERAL PROJECTS AND OTHER ORGANIZATIONS

IMPORTANT TRH PRODUCTS

- Reproductive health service delivery guidelines
- Learning guides
- Clinical Training Skills manual and learning package
- Postabortion care reference manual and OJT training package
- Performance support tools: ReproLine CD– ROMs, JHPIEGO TrainerNews
- Pocket guides
- Supervision reference manual and checklists, group-based learning package based on performance improvement
- Infection Prevention and Advanced Training Skills manuals and learning packages

TRH APPROACHES ADOPTED BY BILATERAL PROJECTS AND OTHER ORGANIZATIONS

Award/Country:

- STARH/Indonesia
- DISH/Uganda
- FHI/Kenya
- AMKENI/Kenya
- PSI/Pakistan
- SFPS/West Africa
- WHO/Geneva
- India/EngenderHealth, PRIME

Approach:

- Performance and Quality Improvement
- Competency-based training
- Decentralized training system for dissemination of guidelines for voluntary counseling and testing for HIV
- Clinical training skills
- IUD competency-based training package
- Preservice training: Community-Based Health and Planning Services (CHPS) in Ghana

SUBSTANTIATION OF THE USE OF TRH PRODUCTS AND TOOLS

UNFPA, Kenya

"Since 1995, UNFPA has been supporting the Ministry of Health reproductive health (RH) program to strengthen its capacity to provide integrated RH services through improved skills and competency of staff and availability of the necessary tools. The JHPIEGO Kenya office was supporting similar activities in some parts of the country through decentralized training centers (DTCs). UNFPA was therefore requested by the Ministry to support training in the remaining DTCs. In order to ensure uniformity of training, attempts were made to use similar training materials and models, and hence the order to JHPIEGO for the manuals and models."

"UNFPA procured for the Ministry of Health varying quantities of handbooks and manuals for trainers and participants on CTS, IUD, IP, and FP; models (breast, Zoë, condom, uterus); IP and IUD slide sets, slide projectors and easels; IUDs and Norplant kits. The materials were distributed to the training centers and have been extensively used in RH training. The models, particularly the Zoë model, were found useful because the trainees could practice certain procedures on them, before moving on to a patient/client. The handbooks and other manuals have continued to be useful training and reference materials for the Ministry."

Adapted from: Foster P et al. 2003. Evaluation of the Training in Reproductive Health (TRH III) Project. Submitted by LTG Associates, Inc, TvT Global Health and Development Strategies, to the United States Agency for International Development.

AMKENI Project, Kenya

"We wish to state that AMKENI, a bilateral service delivery project managed by EngenderHealth, has used and continues to use several JHPIEGO training materials extensively. We have found them well presented, user friendly, and adaptable in actual clinical settings. In particular let me mention the following:

■ Infection Prevention for Family Planning Service Programs: Reference Manual and Videotape

A very simple yet handy and practical set of materials for service providers that has not only been useful in training but has greatly assisted us in institutionalizing improved infection prevention practices. We are looking forward to the revised version that we understand is in the works.

Norplant Implants Guidelines for Family Planning Service Programs

Another reference manual that has proved extremely useful in training in insertion/removal and managing complications. Of note, AMKENI was recently called upon to conduct a national Norplant training of over 400 service providers in order to scale up services, and we used this manual throughout.

Clinical Training Skills for Reproductive Heath Professionals

The training and supervision technical team of AMKENI that assists MOH to strengthen systems and review RH policies has used this as major resource material in TOT and guidelines and curriculum development.

■ PocketGuide for Family Planning Service Providers

A very useful companion for FP providers in our project.

■ IUD Guidelines for Family Planning Service Programs

We have used this manual in basic training as well as in update and refresher courses in our project. AMKENI in collaboration with FHI is assisting MOH in IUD rehabilitation project and this manual is the main resource.

■ *Madam Zoë* pelvic model

In AMKENI this is an indispensable tool in minilaparotomy under local anesthesia, MVA, and IUCD training."

This informant participated in the CTS training while a lecturer at Nairobi University and subsequently used CD-ROMs to develop teaching materials and presentations. She reports that other CTS participants have expressed that they are more confident in:

- planning, demonstrating, and coaching during a clinical training session;
- asking questions during classroom and clinical training sessions;
- providing feedback during classroom and clinical sessions; and
- using learning guides and checklists to assess a trainee's progress in learning clinical skills/activities.

TRH training materials used include:

- Postabortion Care Course Handbook, guide for participants
- Postabortion Care on- the-Job Training, supervisor's guide
- Infection Prevention for Family Planning Service Programs, a problem-solving reference manual
- Clinical Training Skills for Reproductive Health Professionals, first and second editions
- IUD Guidelines for Family Planning Services Programs, a problem-solving reference manual

FHI, Kenya

"The dissemination of the VCT guidelines using the decentralized training system seems to be the best mode in Kenya right now for getting information quickly and thoroughly to the health providers in the field. As you know, FHI and JHPIEGO collaborated a few years back on using this system for training/dissemination of reproductive health information to health workers in the districts working at all health facilities. JHPIEGO did the training/dissemination and FHI did the evaluation of the system. The results showed that the training system used was very effective in changing the knowledge of the health workers in the facilities and that if a support visit to the facility was also made, there were even higher knowledge gains."

"So, when we wanted to have our VCT guidelines for health workers (trying to educate them on this new service and what they should know about it to inform their clients, not to [perform] the service) we asked JPHIEGO. While we had hoped to also do a study on the effectiveness of the intervention like we did with the reproductive health guidelines, we didn't due to the increased costs. But we figured, 'if it worked for FH why not VCT?'"

"In any case, the dissemination/training using the decentralized training teams was undertaken with seemingly good effect. We recently held our own evaluation of the IMPACT Kenya program and the evaluators did not document any lack of knowledge among health workers about VCT. On the other hand, we have other guidelines that we have produced, and have done some dissemination of the guidelines with less success that the evaluators did pick up. We were very satisfied with the JHPIEGO system of training through the decentralized training teams. I think this will be the way for other important training/orientation subjects to take place in the RH and HIV area in Kenya in the future."

Additional Impact of TRH in Kenva

The JHPIEGO Kenya office reported that the following organizations are using JHPIEGO materials:

- Liverpool Project
 - VCT orientation package
- Marie Stopes International
 - VCT orientation package
- Family Planning Association of Kenya (FPAK)
 - Contraceptive Technology Update (CTU) orientation package
 - Pregnancy checklist

EngenderHealth (India and Turkey)

The informant reported that the service delivery guidelines, pocket manuals, and other documentation developed by JHPIEGO were widely used by EngenderHealth and PRIME in India and Turkey. Those documents, as well as the IUD training course and materials and the voluntary sterilization training materials for minilaparotomy and abdominal tubectomy, are still disseminated through the project. EngenderHealth has made extensive use of the competency-based training and materials package, as documented at the "Training: Best Practices, Lessons Learned and Future Directions" conference (May 2002). It was further noted that the collaboration between JHPIEGO and EngenderHealth "worked well" and that JHPIEGO's strength in preservice education was critical to the overall success of health systems strengthening activities undertaken by other Cooperating Agencies in India and Turkey.

Impact of TRH in India

As an independent consultant, this informant conducted interviews in connection with Uttar Pradesh and talked with people in medical schools about the physician training and other training activities. It became clear that the approach to clinical training currently in use was introduced by JHPIEGO more than 10 years earlier, although JHPIEGO is not credited with introducing the model. Anecdotal evidence suggests that the training materials have been widely adopted and are now used by local organizations. In Kenya and India, some of JHPIEGO's training approaches are used in other disciplines. As an example, the informant reported that "...senior people trained as obstetricians/gynecologists report that their students placed pressure on other departments in the medical schools to change their teaching approach after going through (JHPIEGO) gynecology rounds."



Brown's Wharf 1615 Thames Street, Suite 200
Baltimore, Maryland 21231-3492 USA
tel: 410.537.1800 fax: 410.537.1474
www.jhpiego.org